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Aberdeen and the Social Science Congress.

THE expression in one of Tennyson's poems, "a clear-walled city by the sea," comes into one's mind in looking at the architecture of the more modern and handsome portions of Aberdeen. These are not the portions nearest the sea, certainly, and it must be confessed that the lower portions of the town have a grim and uninviting character, where the flat unbroken granite walls have become dark and dingy with time, and where the streets are narrow and dirty. But the city as a whole is a sea-side city, and very invigorating is the sharp, keen feel of the air that blows through its streets, and forms (when there is not *too* much of it) the best ally of the "Health Section"; and there is something in the look of the hard bright walls of grey granite that stretch in long perspective up Union-street, especially when seen in light and clear weather, which seems remarkably in keeping with the climate, and gives, of course, a great deal of individuality of character to the architecture of the city.

This same street, called Union-street, may be said to be the backbone of the city, not only architecturally, but, if we are rightly informed by those who ought to know, commercially and in relation to general prosperity also. The street presumably derives its name from the fact that it crosses, by means of a large granite arch, a deep dell through which the railway now runs, and which formerly must have acted as a considerable barrier in the way of circulation of traffic; so that Union-street is to Aberdeen in some sense what the Holborn Viaduct is to London, only that its relative importance is much greater; for the formation of this street has almost practically originated the success of modern Aberdeen. A walk about the place, and a glance at its map, would show at once how this would be so. The town is irregularly built, the old streets running at every possible angle, and neither wide nor cheerful; and the driving through its centre of this wide straight thoroughfare, lined from end to end with a high class of public buildings and dwelling-houses, at once gave the whole place a new character and dignity, and might be said to have transformed it at one bound from a second-class to a first-class city, so far as character and appearance (not size) are concerned. The undertaking was made in a bold and what was once thought a very rash spirit, on the strength of borrowed capital, which involved the Corporation at one time in considerable difficulties; but all this has been long since tided over, and the foresight of those who initiated the scheme more than justified. Perhaps there could hardly be found a more striking testimony as to the important effect which the planning and laying out of streets may have upon the status of a city.

A good deal was said in our columns, a little while ago, in regard to the value of granite as an architectural material, and the desirability of extending its employment further in London. In continuation of the subject it may be interesting just to recapitulate the impression which this granite city produces when regarded as a whole, and in reference to the architectural capabilities of the material. The old portions of the town unquestionably show that granite changes its effect very much, after exposure for a considerable period to the smoke and dust of a city atmosphere, even one so comparatively little contaminated as that of Aberdeen; and the heavy dark grey, or nearly black, walls of some of the older streets have an oppressive effect on mind and eyes. But there is also a look of solid strength about them which is, in one sense, more satisfactory than the picturesque but rickety and tumble-down structures one sees in the old portions of so many towns; and it may be doubted whether dirty granite is not, on the whole, a less grim and depressing material than dirty brick.

Coming to the new architecture of Union-street, and considering its *ensemble*, one may say that granite very fairly vindicates the claims of its adherents, as a fine and effective though rather unmanageable building material. The peculiar coldness of effect which has been deprecated will be found to be less marked than would be expected: except in dull weather, lightness rather than coldness would seem the characteristic: lightness without hardness or glitter. For it is to be noted, especially in reference to the little controversy in our columns already referred to, that the Aberdeen folk do not polish their granite for external use to anything like the extent which is seen in the City buildings in London, where granite seems to be used chiefly to obtain glitter in the shape of polished surfaces, and pilasters, and shafts. Except an occasional door architrave or shaft (and that but seldom), there is no polish to be seen all along the length of Union-street; nothing but the white or grey lustre of the tooled stone. And this appears to advantage in both Gothic and Classic designs, so far as general effect is concerned. The Roman Catholic Church in Huntly-street, a comparatively new work, has a well-designed and elegant spire, the effect of which, in this white material, is quite fairy-like, though there is no attempt at any elaboration unsuited to the character of the material. The Classic portico of the Music-hall in Union-street, though belonging to the same precise and formal order of Revived Classic, looks less cold, less out of place, in granite, than a similar design, with portico and Ionic columns, appears when executed in some of the darker sandstones in frequent use. And some of the dwelling-houses in the same quarter, though plain to excess, with just a cornice, and in the more prominent houses perhaps an order of flat pilasters, have not only a solid and comfortable, but even an artistic appearance, set off, as many of them are, by the effective treatment of the entrances, where the door and its accessories, painted in very dark tints, slightly relieved with colour or gilding, stand in effective contrast to the white granite walls, and make a façade which, though it has, perhaps, to southern tastes a slightly tomb-like appearance (and that is really a matter of association), is also "monumental" in the other and architectural sense of the word. The difficulty is, of course, in regard to ornamental detail, which can be but little elaborated in so stubborn a material. In the case of the Catholic Church just mentioned, some of the usual details of fourteenth-century Gothic are cleverly treated so as to have at a little distance a very orthodox appearance of completeness, though in reality they are little more than blocked out with square sinkings. It will be readily supposed that the material lends itself better to the more symmetrical and formal character of Greek detail than to the freedom of Gothic; and some of the caps of columns and pilasters in the Classic buildings seem executed with as much precision and almost as minutely as if in marble. The great drawback to the architecture of Union-street is the flatness of everything. Cornices and strings seem as little used as possible, and when used are kept with as little projection as possible, to avoid the expense of much moulding; and even projecting window-sills are almost unknown, as the granite seems to require no protection from drip, nor does it show any of those vertical stains beneath the sills which so much disfigure ordinary stone and brick buildings where sills are used flush with the walls. To the eye accustomed to projecting sills and to pedimented windows or projecting architraves the effect seems singularly bare, the windows being literally holes in a flat wall. In some of the more recent buildings this has been discarded, and in the "City Buildings," containing the municipal offices, Messrs. Peddie & Kinnear, of Edinburgh, have achieved a Gothic building, combining Scottish Gothic detail with something of the character of a Flemish guildhall, with very considerable success; some of the details seem rather wanting in refinement, but the treatment of the arcaded ground-story of three-centred arches is very effective. The move in the direction of Scottish Baronial Gothic which seems to have been made is, however, to our thinking, rather doubtful; and we should be disposed to regard something founded on more Classic types of building as better suited to develop the architectural qualities of granite than this, not florid, certainly, but more elaborate and less quiet style. The corbelled-out turrets of the City Buildings and one or two other buildings in the eastern part of Union-street come out well, certainly, in the view down the street; but the view in the opposite direction is as characteristic in its way. The street runs nearly due east and west; and in the evening the appearance of the long lines of white buildings, with the sunset sky seen at the end of the vista, is something very

unique and deserving to be called picturesque, though not in quite the usual sense of that expression.

The Old Town is, in some parts at least, picturesque in the ordinary sense of the word, especially about the Bridge of Don neighbourhood, though the picturesque consists rather in the placing of the buildings than in their actual appearance as buildings. Exception must be made to this in regard to the old cathedral church, however, the two towers of which are seen from the high road leading out of the town, and across the new Don Bridge. Their peculiar outline courts attention at once, and nothing could seem more peculiar and more at variance with one's experience of mediæval architecture in England than the aspect of the west front of this building, where things that we are accustomed to regard as entirely separate in the history of Gothic detail seem all jumbled together: a west window with a number of long narrow lights, giving the idea of a number of lancet windows placed together, but with a fourteenth-century type of mouldings, and then again with rounded and not pointed heads. The towers, terminated by short stumpy spires with battlemented bands, are very peculiar; looking at a distance like something Romanesque, though they are, in fact, of late date. The new Bridge of Don crosses the river two or three hundred yards lower down than the old one, and presents, like most bridges of recent times, nothing of the picturesque character that is so often found in old bridges; but the original Don Bridge, Byron's Bridge, deserves all the repute it has acquired as a picturesque and interesting relic of old bridge building, and crosses the stream just at a sharp bend, with one pointed arch much higher than its width, and adjacent to a dark nook of the river between high banks covered with trees. The bridge is steadied on one side by very broad massive buttresses one on either side of the arch; but in spite of these it is in an unsafe condition, and a good deal of repairing is going on at its abutments; we hope it will not be necessary in any way to touch or interfere with the arch itself. It may not be known generally that the eminent French artist, Gudin, painted this scene; the picture was in one of the International Exhibitions at Kensington some years ago. His picture was painted specially in connexion with the interest of the place as a haunt of Byron's in his youth; but it is quite a corner for a painter on its own merits, and the view from the old bridge down to the new one, through the arches of which the sea is seen beyond, would make an admirable picture.

There are evidences in recent buildings in Aberdeen of an intention to make more direct use of the opportunities for constructive polychromy presented by the varying tones of the different granites available for use in the neighbourhood; though this source of effect has been apparently much neglected, and certainly should receive more attention. In the Opera House, which is the design of Mr. Phipps (whose merits as a theatrical architect are known to our readers), axed granite is used in combination with red freestone, with very good effect: and in the Marischal College, which is a building in late Gothic style, the windows are filled with red stone tracery; though this seems to have resulted from no desire for effect, but simply from the impossibility of cutting thin tracery bars in granite. This same building, in which the meetings of the Congress are being held, is not the Marischal College that was dear to Dugald Dalgetty, but a rebuilding thirty or forty years ago, by the late Mr. Simpson, whose abilities, notable in dealing with Classic design, seem to have utterly failed him when he came to treat Gothic; for the design is thin and wiry to a degree, and shows no attempt to turn to account the special qualities of granite: but then Gothic was not rightly understood by any one at the period when this was erected, so that it would be hardly fair to bear on the memory of its architect.

The differences of level and quick declivities of Aberdeen remind one at times of Edinburgh, and furnish opportunity and suggestion for something of a more piquant and characteristic architectural treatment than is to be found in the square solid style of building most generally adopted, which, as we have observed, suits the material well, but not always the nature of the locality. There is, however, another side to the architectural and picturesque qualities of Aberdeen; one which came home to us forcibly when walking down the winding street called the Gallowgate, where we might have said, as Coleridge did of Cologne, "we counted fifty different stinks," conveying each its own tale of unhealthy conditions of life. If such a state of things as is thus indicated is allowed to remain, there will be little real credit in the neatness, cleanliness, and finish of Union-street, and Aberdeen will have to be considered as a whited sepulchre. We recommend earnestly to the consideration of the local authorities an investigation of these tell-tale odours and their causes, followed by swift and uncompromising action, unless they wish to stand discredited in the eyes of those who regard the provision for healthful living as one of the first duties of an incorporated community.

We must defer till next week any consideration of the special subjects, some of which will have been discussed in the various departments by the time these remarks are published. We give a portion of the President's opening address, which was delivered in the Music-hall on Wednesday evening.

THE PRESIDENT'S ADDRESS AT THE SOCIAL SCIENCE CONGRESS.

In the general address at the opening of the Social Science Congress at Aberdeen, on the 19th, the President (the Earl of Aberdeen), after mentioning that he passed over intentionally the subject of education, as no new occasion for reviewing its progress had arisen since it was so ably treated by the Marquis of Huntly at the last Congress, proceeded to consider the subject of prison labour, and the reform of prison discipline, from which he proceeded to those of workhouse reform, and the improvement of labourers' dwellings,—subjects between which there exists, perhaps, a connexion closer than was on this occasion definitely pointed out. Possibly, not a few inmates of the workhouse could trace their reduction to that last resort as a consequence of the habits of body and mind engendered by a comfortless and unwholesome dwelling. In speaking on these subjects, the Earl of Aberdeen remarked, after quitting the topic of prison discipline, that in regard to workhouses a reform was probably somewhat remote, the question being beset with many difficulties, including that of the relative functions of local and imperial taxation:—

"And yet it is to be feared that in the administration of our Poor Laws abuses exist as great as those which have led to the new Prison Acts. The idle, and those who are scarcely deserving of pity, are allowed to be a serious burden upon the rates, while our poor-houses seem to be, in many respects, conducted on the assumption that such as those alone will claim admittance. The unfortunate who lapse into poverty through no fault of their own are thus repelled, and, as the result, the public sense is occasionally shocked by the record of bitter privations, and even of deaths, incurred to avoid the workhouse. Is it reasonable to hope that some day the masters of our large workhouses will be men of the same calibre as the governors of our best ordered prisons, and that the constant supervision of visiting committees of magistrates will further insure due discrimination in the administration of such institutions, not forgetting the sad but certain fact that 'the poor shall never cease out of the land,' and that there are some whose poverty ought to command unmingled pity, and secure to them compassionate relief? As a single illustration of my meaning, I may mention the enforced separation of married paupers. Such a requirement, for instance, though generally necessary for the maintenance of order and discipline, might surely be dispensed with, at all events, in the case of the aged and infirm. To sum up the matter in a word, while for the many the workhouse properly partakes of the character of a reformatory, there are those for whom it ought rather to be regarded as an asylum.

There is another subject, somewhat akin to this, to which I wish here to make brief but special reference,—namely, that of increased house accommodation for the labouring classes and for the poor. The recognition of a great want in this respect, as regards towns, led to the formation, years ago, of the Metropolitan Association for Improving the Dwellings of the Working Classes. This society, founded by several enlightened men, from purely philanthropic motives, has accomplished much useful work, and continues to-day in a flourishing condition; while it has been the pioneer, if not the agent, in promoting a number of schemes having ostensibly the same object. The general recognition of the need of further steps in the same direction, which led so many to co-operate in this movement, took shape as regards legislation in the Labourers' Dwellings Act of 1875. This Act, while it endorses and adopts much that has been attempted by private or voluntary effort, gives increased scope and facility for similar exertions in the future, and at the same time it provides safeguards against their failure or miscarriage. Turning to another aspect of the same subject, namely, the want of improved dwellings in rural districts, we find that in this department also the need has been to some extent recognised by the Legislature; for the loans which are administered under the management of the Inland Enclosures Commission have special reference to the building of cottages, as well as to other agricultural improvements.

But in speaking of the recognition of a need in this respect, whether in urban or rural districts, we are reminded somewhat sadly that such recognition has not availed to lead to an energetic and comprehensive effort to provide a remedy. In this particular district the need of improved cottage accommodation exists probably to as great an extent as in any other part of the kingdom, and it has accordingly been the subject of a good deal of attention and of much discussion. But it seems clear that before any extensive improvement can be effected there must be more co-operation between all the parties concerned. The landlord, the tenant-farmer, and the labourer must all contribute. It is not enough for a landlord to make up his mind that he will not look for a mere money return from expenditure incurred in the building of farm cottages. The farmer must rise to take an interest, in some measure at least, in the moral and physical well-being of his men, and surely the responsibility accruing from the position of a master applies here as well as in other cases. While, lastly, the farm labourer must recognise the advantages offered by an opportunity of forming a settled home in contrast with the roving and independent life which in this country is unfortunately too characteristic of that class.

There is another topic upon which I have not yet touched, which, while it has an important bearing upon each of the social questions I have alluded to, surpasses them all in magnitude, affecting, as it does most seriously, our national well-being, and therefore deserving in a special degree the attention of an Association which has for its object the promotion of the moral and physical welfare of the people. I refer to intemperance in the use of intoxicating drinks. The claim which this question has upon the notice of your Association will appear still more plainly by analysing the various heads of inquiry under which the subjects which are to receive consideration at this Congress are grouped.

Thus, in dealing with the state of our laws—especially the criminal law—the treatment of criminals, and questions connected with prisons, the question arises, Whether there is any one tendency or influence which more than any other brings that criminal law into operation, and fills our prisons with inmates of both sexes, and all ages, drawn from every class of life? Or, turning to the department of education, is there any special influence which mars our progress in this respect, especially as regards the humbler classes of society, rendering them either indifferent to the opportunities afforded them of educating their children, or incapable of giving free scope to such opportunities,—an influence, moreover, which at the same time often reduces to the lowest social grade those who have received an elaborate education, and pass as men of culture. And once more, under the subject of health, I would ask, is there any one habit or vice which has unquestionably caused an overwhelming amount of disease and debility,—debility which is often transmitted to future generations? The answer given to these inquiries by the vast majority of those who are qualified to form an opinion on the subject differs only as to the extent to which other causes in addition to the one now before my mind have contributed to the mischief. Whether we appeal to those by whom the criminal law is administered or enforced, or to physicians, philanthropists, and ministers of religion, their voice is unanimous in declaring that these evils must very largely be attributed to one definite source,—intemperance in the use of strong drink.

Here I wish to state plainly that I do not

come before you as the author of any panacea, or the advocate or representative of any special scheme for eradicating this plague and pest in our social life. The very fact that so large a number of schemes have been devised for this end is in itself a proof of the magnitude of the evil; but I am at present unpledged, either by conviction or by promise, to any project of the kind; and, moreover, my connexion with the committee appointed by the House of Lords to consider this very subject would preclude me from pronouncing a definite preference for any particular line of action. My desire and purpose is rather to suggest whether it would not be both appropriate and opportune that your Association should consider this great subject,—a subject which, so far as I know, has not hitherto formed a special topic for discussion at your meetings, though, as I have endeavoured to show, it must be regarded as coming directly within the scope of your deliberations.

I have referred incidentally to the opinions held upon this matter by those who are responsible for the enforcement and administration of the law, under which general terms I would include functionaries of every rank, from the judge of assize down to the police officials of the kingdom. Their opinions cannot be regarded as a mere general impression, attributable to professional or individual prejudices. They are undoubtedly based upon the special opportunities of observation which belong to their professions, and on the facts and figures which it is part of their duty to collect or to consider.

As regards the physical effects of strong drink, ample opportunities have been afforded for obtaining the opinions of the most eminent physicians on the subject, and the preponderance of the testimony is very decided,—that the health of the community is seriously prejudiced by the prevailing excess in the use of alcohol.

It is wholly unnecessary that I should weary you by appeals to statistics upon this subject, or to the opinions concerning it expressed by persons whose judgment is entitled to respect. In no controversy of our day are facts and figures collected and tabulated with greater diligence, or the dicta of eminent persons recorded with more care; and the results are within the reach of all. Indeed, it may fairly be assumed that the wide differences which exist in the views held upon the Drink Question are due in a very small degree, if at all, to any doubt respecting the facts, but mainly, if not altogether, to diversity of opinion as to the nature and extent of the responsibilities of the community and the State, in view of those facts. The petulant retort, "Am I my brother's keeper?" is indigenous to our breasts, and in some form or other springs to our lips whenever the misfortunes or the faults of others around us seem to demand from us either cost or self-denial. But the practical answer comes back to us again and again, in language which all can appreciate, teaching us that such a position is not more selfish than it is foolish. The ties which bind us to our fellow-men are not of our own making, and it does not rest with us to decide whether we shall acknowledge or repudiate them. If the State neglects the social and moral welfare of the masses of the people, and, as Lord Beaconsfield, I think, has expressed it, allows Government to become a mere matter of police, it will not fail to reap the natural fruit of its neglect in an ever-increasing amount of pauperism, disease, and crime. True enlightenment in the government of a nation will not display itself in the erection of hospitals, lunatic asylums, workhouses, and gaols—institutions which no civilised community can dispense with; but in dealing with the evil causes which tend to undermine the health, prosperity, and virtue of the people. I am not about to abandon the position I have already taken, or to proceed to indicate or even to suggest means by which the national evils of intemperance may be mitigated. My object is purely to justify the plea I have ventured to offer, that the subject is entitled to a prominent place in the deliberations of a Society such as yours. I do not dissemble my conviction that Christianity in its deeper sense is the only panacea for moral as well as for spiritual disease among a people. But when, as in this case, a national vice attains such a development as to assume the proportions of a great social question, affecting the wellbeing and prosperity of the community, it is but right that it should claim the attention of an Association formed expressly to deal with questions of this character. Your past Congresses have operated sometimes to promote, often to expedite, amendments of the law, which have helped on social reform, but nothing you have accomplished in the past could more justly secure for your Association the respect and gratitude of wise and good men than would your success in this respect, if by taking up this question, without regard to the dreams of enthusiasts, or the projects of specialists, and grappling with it, not in its religious or even in its moral bearings, but solely in its social aspect, you succeeded in attracting to it the due attention of Parliament, and, above all, if you secured for it, for the first time, the consideration of the House of Commons, on a basis and in a manner worthy of the magnitude of the subject and the high position and character of that great assembly."

IS ART CAUSE OR EFFECT?

THOUGH it may seem late in the day to ask such a question, now that all the forms of art that we as yet know anything of have had their period of highest development, yet in one sense the question is very pertinent to the time, since there has been in the present generation probably more talk about the influence of art in raising the moral tone and civilisation of the people, and a more earnest and well-intentioned desire to see that influence widely and rightly applied, than at any other time. The idea that the arts were civilising and refining agents is, indeed, axiom (at least) as the axiom of the Roman poet, with which we are so terribly familiar,—

"Ingenuas didicisse fideliter artes
Emollit mores," &c.,

though probably the *"ingenuæ artes"* hardly signified precisely what we used to mean by "the fine arts." This latter phraseology is also now more or less obsolete; and instead of speaking of "the arts," we speak in a more broad and general phrase of "art," as a kind of entity or influence not easily to be defined, but the character of which we are all supposed to be agreed about, and which we regard as a powerful agent in the amelioration of society.

It will not be supposed that we mean to question this latter creed in the main; but it can hardly be overlooked that this talk about the influence of art has a tendency to lead to a one-sided and radically erroneous view as to the relation of art to society and to morals and manners, as if art were a kind of extraneous influence, a gospel *ab extra*, moulding the thoughts and tastes of its generation. That it is an important influence upon these, often, if not always, is true in the sense to which we mean to confine the expression. But when people talk generally and vaguely about the influence of art, they seem often to forget entirely that the art of any period is itself in a great measure a part of the result of the civilisation, the tastes, and the aspirations of that period, and of the endeavour to express these; and not an independent influence acting upon them.

Looking at the subject historically, we can hardly fail to see this; and it may be observed, in fact, that in speaking of the art of past periods, we seldom use language in accordance with the "influence" theory. This is especially the case in regard to architecture, which modern criticism has long ago recognised as the art most of all dependent on and moulded by the wants and civilisation of the people practising it. Scarcely any one, we imagine, would think of dwelling upon the influence exercised by Mediæval architecture upon the religious thought and aspirations of its time, taken collectively. Mediæval architecture was, in fact, a much less sentimental thing,—much more a matter of practical problems and difficulties than we, looking at it through "the mist of passed years," have been usually accustomed to think: and so far as it was sentimental, it reproduced and illustrated, it did not itself create the sentiment. There is an extraordinary similarity of expression and impulse to be traced between, for instance, the Hymn of Bernard of Clugny (a part of which has become popularised in English translation) and the mounting, aspiring character and multiplicity of repeated detail in a great Late Gothic Cathedral: but the hymn, and the religious spirit which it represented, long preceded the building. And so on through the various prominent architectural styles of the world: in each it is all but self-evident that the style, as we know it now, was the result of the civilisation of the day and of the conditions of the country and habits of society; and that these influenced, and were not influenced by, the architecture of the period. Even in regard to such details as the sculptured accessories of the Parthenon, we cannot regard these as intended to instruct or elevate those who would see them; they were the representation or expression in sculpture of ideas then and for some time before current in the Greek mind. The notion of the contest of Athene and Poseidon, of the battles of the Centaurs and the Lapithæ, preceded the sculpture of these subjects on the Parthenon; and the procession of the frieze was in all probability as nearly as possible a literal representation of a fête previously celebrated, and to which the people were habituated. The uncouth and grotesque carvings which decorate Hindu architecture represent in concrete form the wild imaginings of Hindu mythology; no one would dream of supposing that the process was the reverse, and that the Hindu mythology was derived from the Hindu sculptors and architects. It may be true, of course, that all the works spoken of, when executed, did afford interest and instruction to the less educated classes of their day; that the Hindu did realise the qualities of Vishnu and Siva more vividly from contemplating their representation in stone, that the Mediæval worshipper was solemnised by the majesty and vastness of the cathedral. But that influence in detail and upon individuals is another part of the question altogether, to be considered separately. What we are just now concerned with is the fact that, in all these and other cases, the pervading intellectual and religious spirit of the day influenced the art, and was not influenced by it.

To turn to an epoch of art in which the element of individual genius was stronger, perhaps, than in any other time and place: are we to think that Michelangelo, and Titian, and Raffaelle, the more influenced contemporary feeling and taste in art, or were influenced by it? In regard to Titian there can be little question: his art was the outcome of the Venetian life of his time, the highest expression of that intellectual luxury, mental and material, which reached its fullest development in Venice; his very choice of subjects was determined, as his latest biographers have been at some pains to show, by the taste and morality of the day and the neighbourhood. Raffaelle, again, formed the crowning figure in a school which had been gradually developed up to the point where he found it; he was the perfector rather than the creator of a style. And in the case of the Renaissance, as in that of the Greek and Hindu myths, the literary expression preceded the artistic, and the latter would hardly have been possible, or at all events would have met with no demand, without the former. Michelangelo alone seems to stand on different ground. The influence of the revived classic taste of the day was, of course, more or less felt by him, but he gave his own translation of it into his own style; and in regard to social and moral feeling he was apart in great measure from his own time and from the habits of mind of his contemporaries. He was one of those exceptional and rare geniuses who have sufficient strength of individuality to stand apart from the life of their contemporaries, and even to influence contemporary feeling and taste to some extent by the force of their own personal intellectual power. But the men of whom this can be said are so rare that they may be regarded as the exceptions which illustrate the rule.

Historically, then, it would seem unquestionable that the art of any epoch has been an effect rather than a cause of the civilisation and moral character of that epoch; that it can hardly be said to have influenced the general character of the people among whom it was produced, since it was rather the offspring of that character; and that although the eminent artists of any period were men of superior intellect to the average of their contemporaries, they were not and could not be to any great extent independent of contemporary feeling and habits of life and of thought, but were rather the persons qualified to give to these the best and most intense expression. And if this was the case even with those highly intellectual forms of art, such as sculpture and painting, in which the individuality of the artist most asserts itself, much more must it have been so in the case of the less expressive forms of art connected with ornamental design and furniture and *objets de luxe*, in which there is less opportunity for the expression of definite ideas and for the influence of personal intellectual character. The ornamental art of a country is a part of the taste of the country, the origin of which can be traced to

no special moment and no special originators. As a proverb is said to be "the wisdom of many and the wit of one," so a specimen of ornamental art in any national style is the taste of many and the handicraft of one; but, as in the case of the proverb, the individuality of the worker is almost or quite lost in the nationality of style and feeling. It would be utterly impossible to trace in detail the influences by which such a characteristic art as that of Japan, for instance (almost the last example left of unaffected national character in art, and it is fast getting contaminated by the influence of self-conscious European taste), came into being and acquired its peculiar character. It is the offspring of a thousand influences of climate and circumstance which have formed the national character and habit, and through this the national art.

Considering all this, it might seem that there is a sense in which the idea, much dwelt upon in the present day, of the influence of art upon the people, the desirability of its further development as a path to a higher civilisation, and so on, does involve a fallacy; as if we were to achieve by means of art the development of those qualities which in fact are themselves the basis and the cause of artistic expression. In place of the spontaneous artistic expression of the great epochs of art in the past, we have now a kind of deliberate resolution propounded: "Let us be artistic: our ancestors were artistic, why are not we? Let us endeavour to be artistic, and all kinds of good will follow."

Those who think the proposition, thus reduced to its simplest form, is entirely futile, must, however, be asked to discriminate a little. It is probably true that we cannot produce a real art merely by talking about it and directing the attention of the nation to the subject; or even by establishing schools of art. Unless there is an innate desire for artistic expression, unless there is some distinct national character and feeling struggling for expression in artistic form, anything we can produce can only be a kind of repetition of the art of some other period. And there is no doubt that with increased means of communication marked character tends to disappear from nations, as in the conventionalities of society the distinctive character of individual men tends to be smoothed down to a conventional type. We are losing, or have already lost, that natural and unaffected taste which results in the production of a natural and unaffected art: and we cannot, of course, artificially make this taste again by deliberately setting before men the products of a former period of spontaneous production. To do so with this object is to encourage the pretence and unreality which are so unfortunately characteristic of much of the art and art-criticism of the day. But there is something to be done, in the first place, by promoting a more general and intelligent comprehension of the productions of art which exist for us: and it is not certain that this is not, so far as "the masses" are concerned, almost a new object, never before realised or attempted. Although the art of the Renaissance arose, as has been observed, from the literature and general state of feeling of the period, as represented among the more educated classes, it is somewhat doubtful whether the lower orders understood or appreciated the higher forms of art then, any more than now; or whether their taste were any purer than now. There is something, therefore, to be done, even if we produce no original art now, in recommending the study of what exists to the less educated classes, with the view of giving them higher interests and wider sympathies than they have at present; and in this respect art, though originally an effect, may become in its turn a cause of civilisation; for it is impossible to deny that an intelligent interest in its productions, a capability of understanding wherein their beauty lies, give and must give a new interest to life, and give birth to a desire for something beyond mere material comfort and well-being. That this study of past artistic work will not make a people into artists, and that it is even liable to be abused for the encouragement of unreal and insincere imitations, cannot be too carefully borne in mind. But the mere capacity for enjoying and appreciating works of art makes an immense difference in the life of the man who has it, over him who has it not; and it is almost impossible to overrate the change which would take place in the mental tone, the culture, the interests, and therefore, in the highest sense, the civilisation of the bulk of the people, if they were brought into that condition of familiarity with the artistic aspect of things which this fuller comprehension of art would imply. In this sense, then, art may be, in a most important degree, an influence on national character and culture. We might say, looking at it in this light, that the art which, in its own generation, was an effect, an offspring, of a high civilisation and an intellectual aspiration, finding expression through the most gifted individuals of its generation, becomes, in its turn, a cause of civilisation to succeeding generations, and even includes the possibility of an entirely new mission in refining and raising the tastes of a later generation, though at the time of its development it was in reality the offspring and expression, not the cause, of the tastes and feelings of the more cultured portion of the community of the period.

It is in looking at the matter from this point of view that we recognise the real value of magazines of art, as we may call them, such as museums and art-galleries. For we believe that, after all said and done, there is no more certain (though it be a slow) method of bringing the popular mind *en rapport* with art and with the intellectual enjoyments which it furnishes, than by simply letting them see as much of it as possible. Lectures and treatises on principles of art have their value and interest to those who have begun to think on the subject; but the first point is to get the people to care about it, and sympathise with it; and in regard to this aim, habitude of eye and mind is a most powerful influence. Every one must have noticed, both in himself and in others, how the perception becomes enlarged and extended by mere acquaintance with a higher class of productions than the mind has been previously habituated to; how that which formerly semed good, and interesting, and satisfying, comes to seem commonplace and unworthy of attention when the mind has become accustomed to what is better; and that, even, without any study of principles or reading up of art-history. It may seem to some a very lax and primitive method of raising the national culture, simply to give people the run of art-galleries; but we believe that experience shows that there is no better method of creating and stimulating a taste for whatsoever things are excellent and whatsoever things are lovely than by accustoming people to see and contemplate them. The reasoning out of the matter comes, if necessary, at a more advanced stage. It may be difficult to tabulate in detail the nature and extent of the mental improvement radiated from art-galleries and art-unions within a certain specified time; the progress may be almost imperceptible: *e pur si muóve*.

So, to go a stage further, the wider spread of what may be called an artistic habit of contemplation, derived from these influences, is the natural basis for the desire for active artistic creation. The influence of the Renaissance movement was really, in its earlier stage, of this nature. It was the action upon the modern Italian mind of the influence of antique literature and antique art, that mainly stirred up that intellectual excitement which, dreaming at first of reviving the classic age, ended in evolving out of classic art and literature an art and literature of its own. So it may be with us in this latter phase of the nineteenth century. We are yet *in transitu*; we must not try to hurry things too much; we must not expect to artificially force an original modern school of art by the mere institution of mural painting and fresco. We have first to revive the spirit under which such forms of art become a real expression of the feeling of their day; we have to feed the springs of artistic creation from the sources of the former great periods of art. Our art-schools and other means of technical training are indeed valuable in preparing means to an end, and in assisting the study and comprehension of "the Arts" considered as separate forms of artistic language and expression. But with this, or before this, we want that development of the spirit which underlies these various arts, which we sometimes speak of as "art" in the abstract; an expression which, if we look into it, really seems to mean the presence of the imaginative faculty. When that faculty is once more awakened and stimulated to activity in the mind of a people who have learned the spirit of the art of the past, it may find its spontaneous expression in forms special to modern habits and modern feeling. In this view, the art of the past stands to us in the relation of Cause, the art of the future, we hope, in that of Effect.

To sum up: we do not in any sense, as we hope we have made obvious, intend to question the desirability of doing all that is possible to popularise the study and comprehension of art, or to deny the efficacy of such study as a means of promoting a higher culture among the people at large; as, in fact, a civilising influence. But this only relates to art, or rather to artistic productions, which already exist, which are the legacy to us of previous generations. An art which is to be the art *par excellence* of the present day must have just the reverse relation to the highest civilisation of the day, must be not its cause, but its effect and expression, which cannot be forced by art-schools or exhibitions, or by the arbitrary resuscitation of any form or process of art in which great things have once been done, but can only arise spontaneously from the existence of a desire for such expression, innate in the national mind.

THE CHARING CROSS HOTEL EXTENSION.

THE enlargement of the Charing-cross Hotel, by the erection of a separate block of buildings on a site which has been cleared between Villiers-street and Buckingham-street, is now actively proceeding, and the intention of the hotel company is to have the building completed and ready for occupation by the time fixed for the opening of the French International Exhibition next year. The building will have three main frontages, one to the south, facing Duke-street, and two others to the east and west, facing Buckingham-street and Villiers-street respectively. The principal elevation will be that to Duke-street, which will closely resemble the main frontage of the existing hotel. The Duke-street frontage will be 120 ft. in length, and 100 ft. in height. It will contain seven stories in addition to the basement, each story having a range of nine windows, varied in their architectural character, some having pediment heads, and others circular. The lower portion of the elevation, up to the first-floor windows, will be in Portland stone rusticated, whilst the upper part of the frontage will be in white Suffolk brick, with Portland stone window-dressings, string-courses, and cornices, with a free introduction of ornamental carving. Above the fifth story there will be a bold cornice, surmounted by an iron cresting, the two upper stories forming part of a lofty and ornamental Mansard roof. There will be an entrance about 6 ft. in width, in the centre of the elevation. The Buckingham-street and Villiers-street frontages will each be 63 ft. in length, with a range of five windows to each floor, and architecturally uniform with the Duke-street elevation. The basement, and the ground and first and second floors, are intended to be let off as wine-cellars and offices, the portion of the building forming the extended hotel being confined to the four upper floors. The offices in the lower portion of the building, exclusive of the basement, will be forty in number. The enlarged hotel will not contain any entertaining or day rooms, the main object of the enlargement being an increased number of bedrooms, of which there will be eighteen on each floor, the total number of bedrooms in the new building being seventy-two. The added structure will be connected with the present hotel by an ornamental bridge carried across Villiers-street at an elevation of 35 ft. above the roadway, and on a level with the third floor. This bridge will be closed in, so as to form a corridor, giving access internally from one portion of the hotel to the other.

The architect is Mr. J. Fish, and Messrs. Lucas Brothers are the contractors. Mr. Roome is clerk of the works.

Building Society "Appropriations."—The Registrar of Friendly Societies has just settled a case of great importance to the members of the "Starr-Bowkett" and other similar building societies. At a recent ballot-meeting of the Rochester Starr-Bowkett Building Society the appropriation fell to a mere child, too young to write her name, and who had been entered as a member of the society by her father. The father wished to sell the appropriation, but the committee objected that he could not do so unless the child signified in writing her assent to the course. Mr. Stephenson ruled that under the sixteenth rule of Starr-Bowkett Societies the father as a guardian had full power to dispose of the appropriation for the benefit of the child.

THE HOUSEHOLD AT DIFFERENT ERAS.*

LOUIS QUATORZE.

"Toute l'Europe, MONSEIGNEUR, est dans l'attente des prodiges que promettent les premières années de votre Enfance: Elle ne peut concevoir quel sera le haut du jour d'une aurore si brillante; et quand elle jette les yeux sur le courage, sur la vivacité, et sur la magnanimité qui se font admirer en Vous avant le temps, elle prend plaisir à se flatter qu'un jour elle Vous aura pour son Maître. Fasse le Ciel que les Peuples puissent seconder de si grandes destinées, et que toute la Terre reconnoisse en Vous un digne Fils de LOUIS XIII. Ce sont les vœux que fait tous les jours, MONSEIGNEUR, Votre très-humble, très-obéissant, et très-fidèle serviteur,

PERRAULT."†

VOLTAIRE, in consonance with the thought of his time, reckoned the history of the world to consist of four eras only: that of Philip and Alexander, that of Cæsar and Augustus, that of the Medicis, and that of Louis Quatorze. Such a division not only ignored the Middle Ages of Europe, but excluded England from the honour of having ever taken a leading—we should rather say royal—part in the development of human happiness; and we are not quite sure that he was illiberal. Though, if Voltaire were alive now and appreciative of the researches of the present century, he might, perhaps, accord a fifth age to the historical world, it is certain that Mediæval England could not claim pre-eminence over France in the twelfth, thirteenth, and even fourteenth centuries. There are many people still, thoroughly acquainted with all that is now known of the arts and literature of the Middle Ages, who believe that, if a fifth epoch is to be added to Voltaire's reckoning, it must comprise a time to come, not one that is past. Their argument is, that the Middle Ages are to France, England, and Germany of to-day, what the period which elapsed between the building of the City and the first century was to the ultimate magnificence of Rome,—what the period which preceded Pericles was to the men who built the Parthenon and the Propylæa of the Acropolis. Perhaps, moreover, we hardly evinced sufficient respect for, or acknowledgment of, the practice of the last thirty years by our somewhat rapid review of the Mediæval era. Perhaps, on the conviction that almost too much has lately been written about it, we followed the example of those historians who ignored or passed it over in a haze of generalities. It would require a very bold man—for the time of reaction has only just set in—to say that the accepted age of faith was not entirely the era of domestic virtue and industrial excellence which the typical historian of art is zealous to maintain. The researches an archæologist makes into the history of the past are necessarily confined to the substantial remains still existing upon the earth. Of the castles and cathedrals he can take stock with minuteness, and judge them, doubtless, with accuracy; but of the huts of the peasantry, of the homes of the people, of the refuse of Mediæval construction, he can only surmise, for every vestige has disappeared. He consequently surmises with impunity. Something is known of the condition of the poorer inhabitants of cities in the sixteenth century; a great deal is known of Paris and London, and of the condition of the people in both those capitals, during the seventeenth century. The picture of both is anything but agreeable; it is pleasant, therefore, to imagine England and France to have been happier places to live in before the Reformation than after it. As far as the arts go, the tendency of modern teaching in this country is to show that architecture before the days of Elizabeth was perpetually right, and that since then it has been perpetually wrong. But, if architecture is a science, of which modes, methods, and principles of construction form only a portion, though an important portion—if it is a science which concerns the health and happiness of all sorts and conditions of people, then we venture to believe that a greater number of Frenchmen and Englishmen were better housed after rather than before the building traditions of Western Europe were confounded in the advent of reform, and the consequent diffusion of education.

For twenty years, the great authority upon all matters connected with the house and household of the Middle Ages has been M. Viollet-le-Duc. His facile pen, his still more facile pencil, his array of "facts" and "authorities" which it is never the interest of a true believer to verify, have been accepted by the majority of people who in this country think about the subject. Further, his Dictionary has not yet been translated; and though all educated Englishmen can read French, it is not every reader's privilege to distinguish a glaring contradiction, an incomplete or imperfect inference, when either occurs in the descriptions and deductions which few archæologists better than M. Viollet-le-Duc can render interesting. Take, for instance, the close of the article upon *Architecture*, in which, with an ever-ready flow of words, the author describes the general points of the "palace" as well as of the "house" in the thirteenth, fourteenth, and fifteenth centuries. The margin of three hundred years is a wide one, but still it will hardly be disputed that all the time both Paris and London were not only extremely small cities, according to modern notions, but also that the burgesses inhabited within the walls, or at least within a very short distance of the centre. M. Viollet-le-Duc's description of the houses of the rich burgess (one of the gentry as we should now designate him in England) and of the tradesman (or petty burgess, as he would be called in France) is perfectly lucid. The principle of the Mediæval town house, as far as the plan goes, is not different from that of a small house in Soho and the neighbourhood of Golden-square at the present day; only the shape and details of the external wall are altered. The *petit bourgeois* or tradesman is generally credited with the ambition—laudable doubtless, and implying that many of his equals were compelled to live up narrow and obscure, perhaps barely penetrable alleys—to possess a gable facing the street. Beneath this gable on the ground-floor was the shop through which very often all the inhabitants of the house passed to reach the upper stories. Sometimes alongside the shop there was a narrow passage leading to a circular stair and a small back court; sometimes this winding stair was close to the street and entered immediately from it. This tradesman lived over his shop, and the whole of the first floor was occupied by a Hall or *Salle* which served as kitchen, dining, and sitting room for himself, his family, and his apprentices, and as a sleeping room for his servants. The same or another stair communicated with the second floor, in which were the chambers. One was occupied by the master and mistress with their younger children; another was a dormitory for the assistants and apprentices; another, perhaps, in the roof, was a granary. The house of the gentleman, the rich *bourgeois*, sometimes possessed an entrance from the street wide and high enough to admit a cart and a man on horseback into the courtyard at the back. There was a shop on the ground story, and frequently no doubt this shop was sublet by the proprietor of the house, who in such a case lived over it with his family. The entrance to the shop was from the street, and the means of reaching the first floor was by a winding stair approached from the courtyard. Sometimes there were kitchen-offices in this court; but, as in the smaller houses, the common Hall was on the first floor, and the chambers were on the second floor. Such houses were principally composed of wood and plaster; sometimes the front wall of the ground story was of stone. Counting the ground-floor as one, they consisted of three stories, and sometimes a storeroom in the pointed roof; while below the level of the ground there was a cellar, and this cellar was often approached through a trap in the public street, much like the descents into the cellars of beershops in London at the present day. The obstructions to which every chronicler alludes were not confined to cellar-traps, for the shopkeeper then used his shop very much as shops are now used east of the Adriatic; he placed his goods for sale outside upon the public path, and used the interior as a sitting, a dining, and doubtless a sleeping room. Yet in those days of naïve and picturesque comfort, as the veracious historian in this century informs us, each family possessed its house. "Dans les villes," writes M. Viollet-le-Duc, "chaque famille possédait sa maison."*

But the people, the human beings who were neither big nor petty burgesses, who professed no occupation in any service whatever; the people who represented the hewers of wood and drawers of water of Scripture; the people who even in France are still comparatively prolific and bring forth numerous children,—did the families of that people each possess a whole house, or even a whole hut? The people, we repeat,—were there any in the age of Faith? If so, where and how did they reside? M. Viollet-le-Duc admits that there were "lower orders," "dangerous classes," "*bouches inutiles*," in those days. He admits that at a time when the different grades of the community were distinctly defined there must have been a large number of persons who were members neither of a religious nor a trade fraternity, who belonged neither to a nobleman's nor a citizen's household, who were neither artisans nor labourers, but who formed "a vagabond mass living somewhere." Undoubtedly; and if we disagree with the French writer's method of describing the inevitable fact, it is because we do not think that "vagabond mass" to have been so entirely insignificant or so entirely amenable to internal discipline as M. Viollet-le-Duc complacently suggests. In spite of the grandeur and comprehensive character of the great households, in spite of the care of a paternal and maternal church, in spite of the practical co-operation amongst bodies of men in the Middle Ages, the "*residuum*" must have been not only large, but sensibly important; and its amelioration or its decrease was hindered by the system of monopoly which characterised the industry of the time. That the beggars and roughs of Paris could in the fifteenth century form themselves into a "*corporation*" or guild, that they could establish agencies in different parts of the country, is evidence of the numerical importance of the lower or lowest orders at that time. In fact, judging by the modern standard of results in indiscriminate almsgiving, the promiscuous charity which was, and still is, one of the great features of monastic life, must have maintained an infinite number of families in a career of idleness if not of dissipation.

Enough is known of the aspect of a Mediæval city in Western Europe to enable us to assert—and enough remains in Eastern countries to form some sort of judgment thereon by analogy of manners and customs,—that both rich and poor did very much as they chose with regard to such modern refinements as height, projection, and situation of buildings. Here and there was a church, an abbey, a college; here and there a large hôtel or an inn, a palace perhaps, or a tower; here was the castle; there the bridge or the market-place; but everywhere,—around and between them,—the masses found some kind of shelter. We do not say that the miserable wooden huts and penthouses (*appentis*), which used to environ the cathedrals and churches existed before the great movement of the sixteenth century; but we do believe that the habit of obtaining shelter in the porches, against the buttresses, under the deep recesses of the sacred buildings, was not only tolerated, but probably encouraged by the clergy in very early times. The state of the Cour des Miracles, a Paris slum, in the seventeenth century has been often described and quoted; Alsatia, in the neighbourhood of Whitefriars, during the reign of Charles II., has formed the subject of much graphic tale-telling. Sauval devoted some space to the various quarters of Paris occupied by the masses; in his history and description printed during the first quarter of the last century, he enters fully,—perhaps with a little temerity,—into the habits and contraband education of the criminal population. His tales of cutpurses and thieves read as if they had been written within our own time, for Fagin and Sikes were not more scientifically expert than—so Sauval would lead his readers to believe—their French prototypes of the seventeenth century. A similar eulogium, for it is really little else, of Paris, written at the close of that century, entirely avoids any but the most distant reference to the slums. Germain Brice treats only of the grand things; of the public buildings, churches, and noblemen's hôtels. He is eloquent upon the orders of architecture and their application; he objects to the *entresol* which was to be seen in many of the new houses of the nobility, and which to him presented an appearance of tradesmanlike meanness. The *bourgeois* is the lowest grade of the community with which he will have to do. Boileau, on the contrary, delights in denouncing the noise, confusion, and injustice of the crowd. With Horace, Juvenal, and Martial as his models, he draws a picture of life in the streets in his own time even more graphic than the earlier satires with which Englishmen are more familiar. Boileau, who lived, according to one of his biographers,—not in a garret, but above one,—in a small tower approached from the "leads," indignantly exclaims against the thieves who took possession of the town as soon as the peaceable shopkeeper had closed his shutters

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* See p. 778, *ante*: "The Reformation."
† Charles Perrault—not Claude Perrault, the architect.

* The late Emperor Napoleon once paid a distinguished compliment to London by stating to an English nobleman that here every house is occupied by a single family! Yet he had inhabited more than one bye street.

with a "double padlock," and had retired to his rooms to re-read his letters and re-count his money. Those thieves are the men to whom M. Viollet-le-Duc alludes in his notice, from Sauval, of the "Corporation des Gueux." M. Viollet-le-Duc offers thanks to the "spirit of association" which undoubtedly existed in the Middle Ages, for this *corporation*. It is said to have been formed in the fifteenth century, and to have been composed of men whose occupation was gone after the pacification of the country at the close of the fourteenth century. Without entering into the details of its formation, and without inquiring whether the *corporation* existed in the time of Sauval,—or whether it ever existed at all,—it is certain that the class of men and families of which it was said to be composed existed not only during, but long before his time. He describes one of the slums in which such people lived, and which he visited. The inhabitants bade defiance to taxes, police, and law. To reach its heart it was necessary to penetrate tortuous, narrow, and filthy (what must have been the character of the filth which, in the *grand siècle* was called "filthy"?) streets. There Sauval saw a "house of mud" half interred, rotten and old, about 27 ft. square, within which fifty families were lodged with their medley of children, legitimate, natural, and naked. There and around lived some five hundred families huddled together and piled one over another.

Quite apart from the story of those slums contemporary evidence of all kinds, and from people of all nations, is at the disposal of every one to show that the cities of Paris and London, about the middle of the seventeenth century, were dilapidated, infected, and filthy; and that the inhabitants of the former capital,—not to mention London,—were crowded together in houses totally unfit, and not intended, for the mode of occupation to which the Parisians subjected themselves. Yet that had been the state of the French capital for a period beyond the memory of men upon whose evidence the world relies; and the question is, Does that state represent the culminating degradation of a hundred or of two hundred years, during which a so-called renascence of literature, learning, and social civilisation had risen and developed? In Western Europe the great building era, linked with the forms of civilisation and spirit of thought now actually in vogue, is the reign of Louis Quatorze. Comparatively speaking, Paris was rebuilt then as it has been lately rebuilt by the Third Napoleon; and London was effectually destroyed by fire. It is, therefore, a very fair question to ask revivalists whether, as regards plan and arrangement,—as regards general convenience,—the houses which in Paris were pulled down about the time when London lay smouldering in ruins, were better, healthier, and more comfortable than those which Louis Quatorze and Charles II. ordered to be built.

It was the great age, fairly renowned for the glorification of a few great men and of many small things; a time when France, the centre of Europe, united almost every species of ascendency.* The Château de Richelieu—and a monography of it, drawn by Jean Marot, is to be found in the British Museum—gives a by no means exaggerated idea of the kind of domain which a nobleman, especially if he had any post of importance in the government of the country, not only built but inhabited. Broad roads led, in a straight line, to the external gates. Thence, to the drawbridge of the château itself, a distance of some 800 English feet had to be traversed, through a *Basse Cour* more than 500 ft. by 300 ft. in size, and lined with buildings of two stories; after that through an *Anti-Cour* some 300 ft. square, with buildings (principally stables) of three stories on either side. The courtyard of the castle proper was nearly 200 ft. in width; buildings of four and three stories enclosed three sides of it. Surrounded on one side by masses of forest, the immediate vicinity of the long lines of building was adorned with gardens laid out in every shape and combination of pattern; roads, avenues, and alleys led through them. Towards the close of the sixteenth and the beginning of the seventeenth centuries, similar châteaux were to be seen over all parts of France; in some, as late, indeed, as the days of Louis Philippe, the perfect and scientific order of their arrangement, even after an age of neglect, contrasted singularly with the rickety character of the town or village near them. No country can show so many monuments of the building genius of almost all reigns as France; and it may be added that no reign is even now,—after the fury of the first Revolution,—so nobly and fully represented as that of Louis Quatorze; ignoring, of course, the unpleasant recollection that a systematic pillage of the nation supplied the building funds in too many cases. The story of Fouquet in the early days of the king, of his letter containing the boast that he was at "his fourteenth million," of his disgrace and dismissal from the care of the national exchequer, are all told in Voltaire's most instructive history of the time. "Proud Versailles" is familiar to every one who has visited Paris and its suburbs. Marly, however, is no more; for the favourite retreat of Louis Quatorze, known to the present generation by drawings only, has seen, as it was prophesied of Cannons, the well-remembered Timon's villa of the satire,—

"Deep harvests bury all his pride has plann'd,
And laughing Ceres reassume the land."

Never was a paradise more painfully obliterated than that upon which the younger Mansard and a host of accomplished—even if mistaken—artists lavished their knowledge, skill, and refinement. It was the last whim of the royal constructor to build a "hermitage" in the woods away from all the pomp and circumstance of state. The château at Versailles was too large and too exposed; the king made several journeys in the neighbourhood of St. Germain and along the banks of the Seine to find a more quiet site. He hit upon a secluded spot which had once been the home of a Louis de Montmorency, who was lord of Marly in the fourteenth century. There was Marly-le-Châtel, a village close to the castle upon the hill; there was Marly-le-Bourg, containing the abbey situated in the valley. They were removed, and the site cleared for the new palace, gardens and watercourses, which formed the labour of six or seven years—between 1676 and 1683. The author of the "Lettres Persanes" probably referred to Marly rather than to Versailles, when he satirically described the king as "magnificent principally in his buildings." "There are more statues," wrote Montesquieu, "in the gardens of his palace than there are inhabitants in a large city." The great *Place*, so to speak, on three sides of which the pavilions of Marly were erected, measures, in round numbers, about 1,650 ft. by 975 ft. At the top was the Royal Pavilion, which contained simply the apartments of the king, of some of his family, and of his immediate attendants. On either side, and at a distance of some 250 ft., were the household offices and lodgings of the servants, the stables, the riding-house, the chapel and other buildings. Twelve smaller pavilions, arranged six on a side, held the guests, who were specially invited to spend a day, or pass Saturday till Monday, at the royal retreat. Those pavilions, each two stories high, nearly 50 ft. square, and placed at a distance of about 190 ft. from each other, were connected by covered bowers

* Macaulay: State of England in 1685.

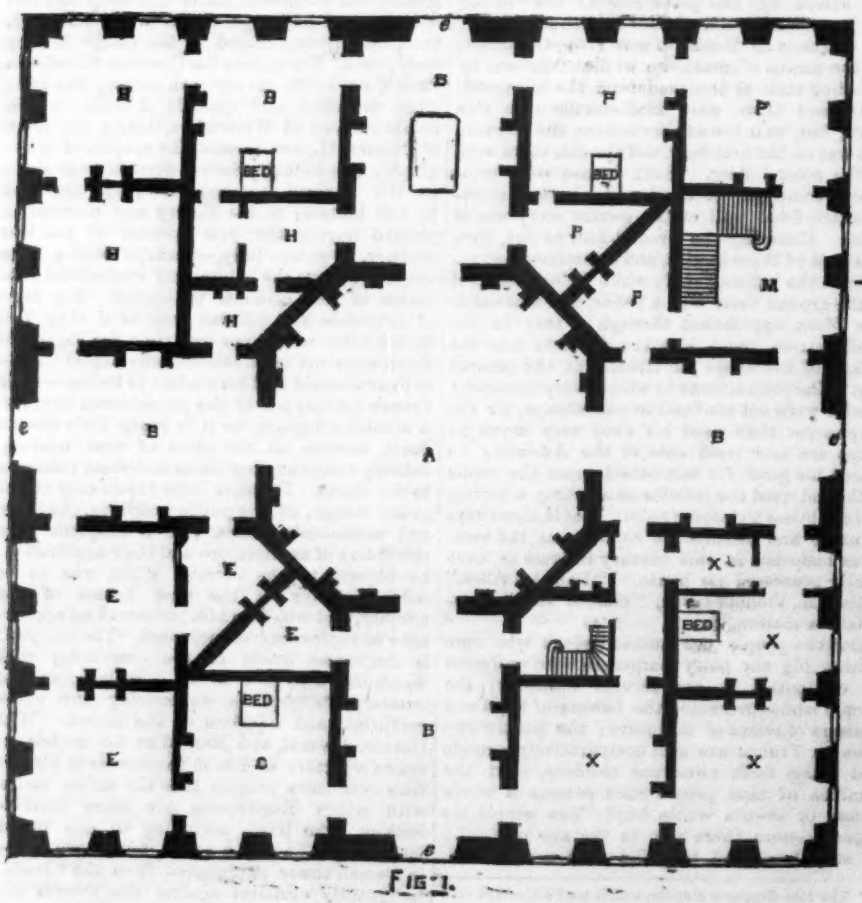


FIG 1.

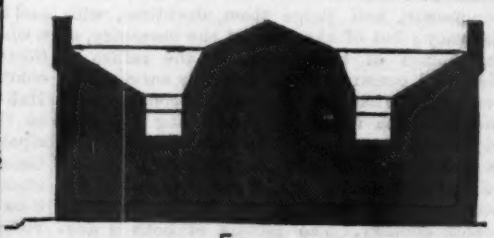


FIG 3.

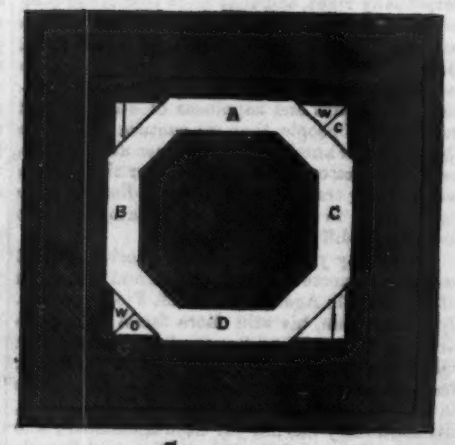


FIG 2.

Note.—Our figs. 1 and 4 are drawn to the scale of a 32nd part of an inch to the foot. An obvious error in our plans of "The Reformation" reversed this scale to the "32nd of a *foot* to the inch."

of masonry and foliage; they were reached under an avenue of trees, trimmed into the outline of a groined vault. Our fig. 1 gives the plan of the king's pavilion, which was raised upon a vast terrace, for there was no basement story; it was approached by degrees of three and four steps extending entirely round the building. The entrances were through the rooms B B B B, which were called the "Salons des Seigneurs." One of these, at the top of the plan, was used as a billiard-room, and each probably served as an antechamber to the four divisions of the ground-floor. At the bottom of the plan, at C, was the king's bedroom, and E E E E formed the rest of the king's set of rooms. The rooms marked H were the apartments of "Madame";* the rooms P were those of Madame de Berry; and the rooms marked X were those nominally of the Queen. The staircase, M, led to the upper floor, which was divided into rooms for a few ladies and gentlemen of the Court. A, was the Hall, or, as it was called, the "*grand salon*"; and this method of arranging a large room common to the whole house, and in which the dinner was served, is explained in our smaller diagrams. In fig. 2, A, B, C, D, represent a terrace covered with lead, and level with the first-floor of the house. This terrace was open to the sky; by this means the central room, A, was lighted by windows penetrating the roof. The section (fig. 3) will explain, better than words, the manner in which the younger Mansard succeeded in concealing with four façades the internal shape of a house. Four closets, for the accommodation of the guests who occupied the upper story are shown at W C (see fig. 2), and they were approached from the open internal terrace. The sets of apartments on the ground-story were not provided with anything of the kind. In the king's set the triangular rooms were probably used as "*garde-robes*," and in these the necessary unpleasantnesses of even royal nature were performed. The whole interior of this pavilion was studied with care, and elaborated with profusion. The walls were covered with paintings of the great events and successes of the reign. All was marble without; the external form of the building may still be traced in the foundation-walls. The stone wall surrounding a part of the park, the undulating site of the terraces and fountains, the paved roads, and an *abreuvoir* robbed of its marble covering, still attest the magnificence which Louis Quatorze knew at least how to order, to inaugurate, and to maintain.

It is very much the fashion among architects to describe the period of the Reformation and the early years of the seventeenth century as purely an Italian renascence; and M. Viollet-le-Duc has been good enough to affirm that the English have preserved their original form of habitation from Italian influence more successfully than the French. This may be true as regards the people, but as regards the nobility and gentry it is not true. The French signorial domain never completely lost its national and distinctive character. Even at Marly, in the midst of rococo influences, the arrangement of the rooms, of the offices, and of all the external accessories, was still French. In England, on the contrary, the palace and, ultimately, the country mansion were planned according to the accepted Italian method. It is worth while to go back a little. Our fig. 4 is the plan of a villa designed by Palladio upon the ancient model. Vitruvius might very plausibly have described B and C as the *thalamus* and *antithalamus*; and Becker's editor could say that in D the Grecian wife "sat enthroned" in the midst of the spinsters. The house was the residence of an Italian nobleman, and it was situated in Padua; the owner "passed into a better life" before the building was completely finished. The entrance-hall A embraces the entire height of the two stories of which the house is composed. At G, G, are archways over which passages connect the three divisions on the upper floor. The centre pavilion was the residence of the master and his family; the wings held the kitchen-offices and the other dependencies of the household. The ground-floor communication between the wings and the centre was maintained through the open air in the ancient manner, which was perfectly consistent with practical convenience under a warm and propitious sky; and it is habitual in hot climates at the present day. Palladio's description of his work is neither uninteresting nor uninstructive. Referring to the house shown in fig. 4, he says*:—"The great chambers are a square and three-quarters long; the arches are scheme and in our second manner. The second size rooms are square. . . . The closets and the passage between are of the same breadth: their arches are two squares high. The entry has four columns a fifth less than those which are without; and they support the floor of the hall (or saloon on the upper floor), besides that the height of the arch is much finer and surer with them. The four niches which you perceive there have each a statue representing the four seasons of the year. . . . . The first order of columns is Doric, and the second Ionic. The upper rooms are ceiled. . . . . On the flanks of this house there are two wings, joined to the house by two passages which lead into the kitchen and to some other offices; and in the middle of each of them there are two arched gates which open into two streets." The façades of the house are exactly what the taste of this country approved, but never improved, during the whole course of the last century and the beginning of the present one. In spite of all the affectation of French life under Louis Quatorze, in spite of the attempted emulation of Roman art, in spite of the extravagant reception of Bernini—which turned the man's head—it is only justice to say that nowhere in France can be found any private buildings so completely the travesty of Palladian adaptation as those still to be seen in all parts of our own island.

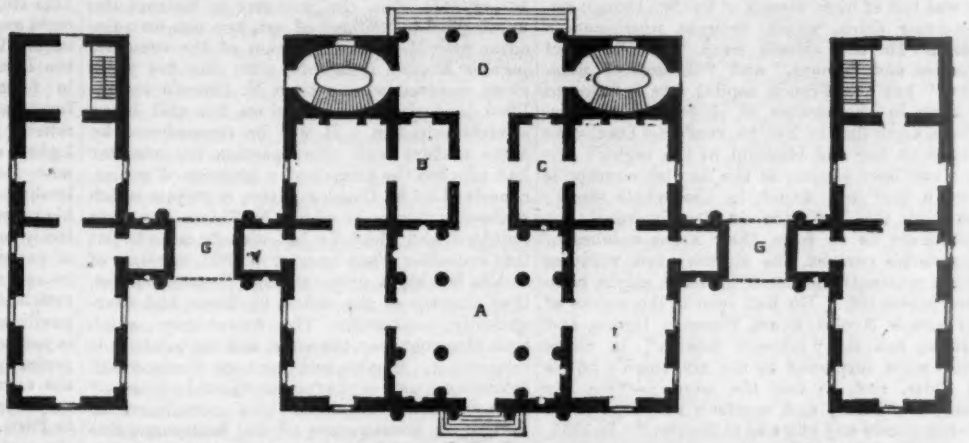


FIG 4.

It is perhaps not unreasonable to suppose that Louis, who really said, and he probably said it well, "L'Etat—c'est Moi," formed his notions of sovereign power not entirely unaided by the advice of his elders and immediate counsellors; and also from the literature offered for his study and perusal. The Court programme of manners and etiquette, which lasted during the lifetime of the great king, but not continued in its integrity by his successor, was introduced and invented by himself. Some of the details seem extraordinary to any one habituated to the comparative simplicity of a modern European sovereign; but about 230 years ago the Courts of Europe were deeply interested in the wonders of the East. The "Great Mogul's" country was a fertile topic of inquiry among the learned who were favoured at intervals with stories of Akbar and Sháh Jahán. Though at that time the commerce of Europe with India was principally carried in Portuguese, Dutch, and English vessels, it was France that read, profited, theorised; it was the French traveller who sent the best letters from Agra and Delhi, and the most frequently. According to Voltaire, the king read greedily in his youth; Anne of Austria possessed much of the "Spanish genius" rife in those days. The Spanish and Portuguese Indies, and the stories which then reached Europe concerning them, were likely to fire the sentiment of self-importance and grandeur which a young man, great from his cradle, naturally nursed. The "Great Mogul," the personification of absolute and irresponsible pre-eminence, was the ideal sovereign whom Louis ultimately surpassed. Nor is the parallel inapplicable to the other estates of the French and Indian realms; in both countries the king was absolute, the nobility were extravagantly rich, a middle-class hardly existed, and the people were miserably poor. The palaces of the king and the houses of the nobility were marvels of design, regularity, and, in their particular fashion, of beauty. In France the houses of the people were found in the discarded and rickety tenements of a former age and state of civilisation; in India they were not entitled even to the name.

During any inquiry into the condition of different classes in France, it should be remembered that the "noblesse" comprised in the seventeenth century a great many families which at the present day would not be included in a list of nobility. The *bourgeois* had become, or rather was deemed, despicable from one point of view before Molière burlesqued him in the celebrated *M. Jourdain*. Evelyn noted in his Diary that the gentry were part of the French *noblesse*; and that of the king's subjects, the *noblesse* appeared to be the sole power, in a political sense, in the kingdom. Fifty years after, in 1698, Dr. Lister, who accompanied the English ambassador to Paris, and made a host of profound observations,—marvellous notes of travel, considering the short time at his disposal, and the circumstance of the visit,—encountered a multitude of poor and miserable wretches in every quarter of the city. Evelyn, in 1649, maintained that the plebeians were of a far more vile and naturally slavish genius than in any other part of Christendom. To use his words, Paris was so pestered that it appeared a miracle to him how so many backs were clothed and bellies maintained as you might behold in one day if you walked the streets: most of the houses ordinarily harbouring six, as often ten, families, betwixt heaven and hell, the garrets, and the cellars. "This I take to be," said he, "the true cause of that nastiness which we usually impute to the nation: persons of quality and such as have room enough being far more proper and sumptuous in their houses than the best of us in England, however we arrogate to the contrary."

About the time of Evelyn's early travels, the only paved route in France—the road between Paris and Orleans—was thought a marvel of the age. Not only were the great routes difficult to follow, but the few that existed even in the neighbourhood of Paris and Lyons, and even in Flanders, were hardly such as a traveller of to-day would call a road.* A carriage drawn

* "Madame" was an Englishwoman, the first wife of Philippe, Duke of Orleans. He was the only brother of the king, and called simply "Monsieur." His ill-fated wife has been tenderly mentioned by Voltaire, who loved this country. She was the daughter of Charles I. of England, and grand-daughter of Henri IV. of France, consequently her husband's cousin. She was sister of two English kings and one English queen, and sister-in-law of the "*roi très-chrétien*." She was mother of two princesses, who married, one, the reigning head of the House of Spain, and the other, the reigning head of the House of Savoy; but she was not the mother of the Regent Orleans,—of abominable memory,—who was her husband's son by a second wife.

* Leoni's edition of Palladio, with notes by Inigo Jones.

* Macaulay entered minutely into the "difficulty of travelling" and the "badness of the roads" in England during the latter half of the seventeenth century. Thackeray also took pains to ascertain the truth, and a graphic description of our highways at that and a little later period may be found here and there in "Esmond," "The Virginians," and smaller pieces. The roads of France may then have been better tended, but during no part of this or the last century were they superior or even equal to those of England. Macaulay's description, in his "State of England in 1685," is too long to quote. Suffice it for our purpose to transfer his reference to the "coach and six," which, "in our time, is never seen except as part of some pageant. The frequent mention, therefore, of such equipages is likely to mislead us. We attribute to magnificence what was really the effect of a very disagreeable necessity. People, in the time of Charles II., travelled with six horses, because, with a smaller number,

by six horses was a necessity, not a luxury; any edict to restrain the use of carriages in the streets was more a benefit to the populace than an obstacle to innovation. Of Paris and London, at the close of the seventeenth century, and of the ordinary houses and hôtels of the former capital, we shall speak hereafter. The two cities compared by Evelyn afford an amusing instance of the contradictions and turns which Time offers to different communities at successive periods. The River Seine was then "nothing comparable for sweetness to the Royal River of Thames." It was full of huge vessels of burden, though not sea-going ships, which brought provisions to Paris. In the streets were "multitudes of coaches and laquays," and "throngs of mankind," but the French capital was inferior to London in the matter of shops and taverns. These, according to Evelyn, rendered London so "open by day and cheerful in the night." So mad and lewd a town as the English metropolis Evelyn had not found in the whole world; yet had the Parisians so far imitated the Londoners as to form their night-watches of responsible persons, the murders and villanies which constantly occurred in Paris might have been prevented! He had seen in the course of his travels Naples, Rome, Florence, Genoa, and Venice, but the "princely fabrics" in those cities were surpassed by the noblemen's hôtels in Paris, and, to use his words:—"for the streets, suburbs, and common buildings it infinitely excels any city else in Europe." In 1657, James Howel would not admit Paris to be comparable to London for neatness of streets and sweetness of site. "London," said he, "hath far better blood in her veins," meaning the conduits and springs of water the city contained. Yet about the time when Evelyn and Howel wrote, an amusement much practised by the young "bloods" of Paris consisted in jumping from a house on one side of the street to a house on the other; and in Pudding-lane, in which the Great Fire of London began, opposing tenements touched each other at the top.

FROM FRANCE.

To the novice in the ability of the nineteenth-century contractor to accomplish easily astounding works, and to those unacquainted with the contractors' reliance on the never-failing stream of willing workmen, the present condition of the palace of the Trocadero and the leviathan sheds of the Champ de Mars would seem to render it almost impossible that within the present period of pleasant partridge-shooting and Alpine climbing, the dazzling heaps of obedient stone and sturdy iron can, within seven short months, become a hunting-field for the lounger and the pleasure-seeker.

There is some prospect, however, that those who visit this Exhibition for pleasure or instruction may meet with more than ordinary weariness, and there are pessimists who look forward to this Exhibition being the death-blow to all such future undertakings; as far as size and extent go, this Exhibition will certainly culminate in its hugeness.

It is only by what we have seen accomplished within the last eleven months that we can have faith in what has yet to be done before the 1st of next May.

It must have been with some allowable pride that M. Krantz, the hard-working commissioner-general, was able to announce not long since that by the fifteenth of this month the architects of the different foreign sections were at liberty to take possession of those portions of ground respectively allotted to their countries. In compliance with this permission, already the flags of more than one nation have been planted by right of possession, and the different foreign sections are advancing apace.

The architect of the British section, Mr. Gilbert Redgrave, has lately been in Paris, and other foreign nations have not been behindhand. It may be mentioned that, notwithstanding the difficulties in the East, the architect of the Russian section has not long since arrived, and if the same spirit that has reigned throughout all the works till this date be continued, we may feel certain that by the 1st of May next the Great Exhibition will be completely thrown open to the world.

It is not difficult at the present moment to find interesting matter connected with the name of Thiers, whose sadly sudden death and solemn funeral were lately the one subject of conversation. With M. Thiers's political opinions we have no business, but of his artistic and critical judgment we are disposed to join with those who have doubted his ability to lead the public taste. Certainly, in the following correspondence, the painter, Horace Vernet, appears better able than the minister to instruct the uninformed in matters of art, nor can we quite agree with M. Thiers's opinion of the romantic painter Eugène Delacroix, who, fifty-five years since, received at one time M. Thiers's unqualified laudation, and later on his still hasty adverse criticism. It will be remembered by some readers with what passion the minister had adopted the project of a museum of copies, conceived by M. Charles Blanc, a project which realised a dream in which M. Thiers had long indulged, and which he had already tried to put into execution when he was, in 1831, minister of Public Works, a proposal that Horace Vernet, then director of the School of Rome, had energetically combated. The controversy which took place between the artist and the minister is interesting. Sigalon had just been charged with executing a copy of the famous "Last Judgment." Horace Vernet regarded this commission as useless, in consequence of the insurmountable difficulties which it presented, and in a letter addressed to the minister he had submitted his observations to him, at the same time seeking to protect the interests of Sigalon, his colleague and friend. Vernet had already differed with the minister, as appears from the following reply:—

"MY DEAR MONSIEUR VERNET,—I am annoyed to see you in such disposition with regard to the enterprise confided to Sigalon. I am not a painter, but I know enough about it to be certain that, if a literal copy is not possible, a free translation is thoroughly executable, and would be very useful. The reasoning that you make upon a copy of Michelangelo has been made about translations of Homer and Virgil. I have read and heard stated particularly that neither Dante, Shakspeare, nor Aristophanes could be translated; yet their translation, to me who knew but badly Italian, and nothing of English and Greek, has given me profound pleasure. I wish, then, absolutely a copy such as this of the 'Last Judgment.' I shall be infinitely obliged to you not to communicate your sentiments to Sigalon; this would be disastrous to my enterprise. . . . .

Adieu. I renew to you the assurance of my esteem and attachment. A. THIERS."

This letter, far too administrative for a man of the worth of the artist to whom it was addressed, irritated Horace Vernet, who did not allow a long time to elapse without replying. Here is the portion of the letter which relates to the question in dispute:—

"As to the affair of the 'Last Judgment,' that is another matter. On this ground I am no more a subordinate. 1st. There never was any connivance between myself and Sigalon: he is more impatient than ever to fulfil the mission. 2nd. Far from seeking to diminish his ardour, as your Excellency would seem to fear, I have aided him with all my power to get over the innumerable difficulties which the Court of Rome raises each day. However, if I do not, out of respect for the Government, make known all my sentiments with a *confrère* whose talent I esteem, it does not follow that I may not give my opinion on the *uselessness for the arts* of the work with which he is charged, and the *immorality* (if I dare use such an expression) of giving to a new posterity a new picture, and then compromising the reputation of its first author. There are certain prestiges which ought to be respected. The state of degradation of the 'Last Judgment' obliges the copyist to re-establish a great part; even in ameliorating it, if such were possible, never could he give but a false idea of this masterpiece to those who have never seen it, and those who know it will not discover it. Permit me to say, sir, a copy is not feasible; the comparison to a translation is an error, one interprets no more when one has to create. To wish to replace in a work of Michelangelo what three centuries have effaced, is to wish to fill in, in their own language, the gaps of the Greek and Latin authors of whose works only fragments have been handed down to us. Michelangelo himself, as if he foresaw the danger which he would run some day, refused to restore the arm of the 'Venus,' and to restore the *Torso of the Belvedere*, which he had drawn more than thirty times: and it is the author of the 'Moses' and of the Medici Chapel who gave this lesson of respect and modesty. I think that we may profit by the circumstance to have conscientiously executed what has remained intact in the chapel. It is necessary to save the remains of the finest work that has illustrated the great century which saw the master born, to collect scrupulously the fragments of this skeleton, and not to paint it flesh colour to rejuvenate it.—I have, &c.,
HORACE VERNET."

In the debate the strongest arguments are undoubtedly those of the artist; however the affair was terminated by the execution of the copy, which may be seen at the École des Beaux Arts, and which it must be admitted is not good.

Among the properties injured by the piercing of the Boulevard St. Germain, the most important, from an architectural, as also from an historical, point of view, is without doubt the Hôtel de Luynes. The building, erected in the seventeenth century by Lemuet for the beautiful Duchesse de Chevreuse, is of truly princely aspect. Owing to the harmony of their sober lines, these old buildings, with their grey tinge, have a stamp of severe grandeur; and the *cour d'honneur* had the proportions of that of a royal palace; it is this court alone which has been destroyed by the line of the new boulevard. The principal buildings remain intact, and there may still be seen the magnificent and well-known staircase, decorated by the hand of Brunetti. This staircase, the revolutions of which are at right angles, as in all the great dwellings of the epoch, is ornamented by a stone balustrade of the Louis Treize style, while the walls, painted in fresco, have preserved all their original freshness. On the walls of the balustrade, bas-reliefs, painted in grisailles, represent mythological subjects,—Apollo, Hercules, Bacchus,—with their usual accessories. But it is at the landing-place that the artist has put forth all his ingenuity. There, in the intervals of a perfectly imitated colonnade, may be seen a crowd of personages, of life-size, who crowd together to see those who come upstairs. Behind this multitude are peeps of distant gardens and pavilions. The ceiling of the cage of the stair is painted to represent the heaven, and an allegorical personage looks down from the midst of the clouds. This staircase by Brunetti is the only specimen of this kind which still exists in Paris. It was, before the Revolution, one of the curiosities of the capital, and Germain Brice, when he was a *cicerone*, never failed to show it to strangers passing through Paris.

Paris.

LONDON ONE HUNDRED YEARS AGO.

THE other day we had to refer to one of the old London directories of a century ago, and the facts contained therein, as well as a view of the metropolis as shown in an old plan of London of that date, and the newspapers of the period, appeared to be of such an interesting nature that we venture to give a few notes about the City and suburbs as they existed in the year 1777.

The Directory of that date is simply entitled, "The New Complete Guide to all Persons who have any Trade or Concern with the City of London and Parts adjacent." It comprises 294 pages, compressed into a small 8vo. volume, and the publishers boast it to be "the exactest piece of the kind hitherto published." Anyway it was printed for the still-celebrated publishing houses of Longman, Rivington, and others, at the nominal price of 1s. 6d., and judging from its many annual editions it must have obtained a very encouraging support. Seventy-seven pages are devoted to a list of streets and places; one hundred and four pages to post-office and carriage news, and over one hundred pages to "the names and places of abode of the most eminent merchants and traders in and about London."

London, one hundred years ago, contained a population of under 650,000 persons, or two and a half millions less than it contained at the last census in 1871! Its size in 1777 may be judged when we state that on the west, beyond Hyde Park was all in the fields, Park-lane was known as Tyburn-lane, which led to the road to Uxbridge and the Edgware roads, the west side of which was merely open country, as was also the ground north of Manchester-square and Baker-street. The present Marylebone and Euston roads were then dignified by the name of "The New Road from Paddington," which had only then been formed some twenty years. The celebrated Marylebone Gardens was on the eve of dissolution,—being suppressed in 1778, and upon the site were erected Beaumont and Devonshire streets and Devonshire-place. Marylebone Park extended from the new road northwards, and the site is now the Regent's Park, while a turnpike not only existed at the corner of the High-street in the same new road, but also at Tottenham Court. A little eastward of the present Portland-road station was the suburban tavern, called the "Green Man" (a still existing sign), while just opposite, and in the meadows, stood the farm called Gardner's. The old Adam and Eve at Tottenham Court was truly rural, on the road to Highgate; it was the scene of Hogarth's celebrated picture of "The March to Finchley," and from the gardens here (in 1785) Lunardi made one of his balloon ascents. From Tottenham Court to Battle Bridge (now King's-cross), the road on each side was skirted by open country; on the south by the Lambs-conduit-fields (where the Foundling Hospital stood by itself), and on

there was great danger of sticking fast in the mire. Nor were even six horses always sufficient. Vanbrugh, *in the succeeding generation*, described with great humour, the way in which a country gentleman, newly chosen a member of Parliament, went up to London. On that occasion, all the exertions of six beasts, two of which had been taken from the plough, could not save the family coach from being imbedded in a quagmire."

the north by the St. Pancras Fields. The present Gower-street was then called "The Duke of Bedford's new road," and was of course an open thoroughfare through the fields.

Further eastwards the site of Battle Bridge was then surrounded by the White Conduit Fields, all open country. The ground that witnessed the decisive battle between the Romans and the Ancient Britons, in A.D. 61, had not yet become celebrated by Dickens's dust-heap, or its name dignified by the more enticing one of King's-cross,—which the late Mr. W. F. Bray (the builder of the houses now known as Liverpool, Derby, and Chesterfield streets, &c., on the site of the said dust-heap) gave to it, half a century later. The upper portion of the old river Fleet ran its course through the fields here, and by the side of "Black Mary's Hole" (now called King's Cross-road), and was a continuation of Coppice-row. As for the White Conduit House and tea-gardens (now a modern tavern in the Barnsbury-road), they were surrounded by fields, as were Sadler's Wells and the new Tunbridge Wells, also houses of resort for the Cockneys. Hereabouts the New River terminated its open-air flow; and of the foundation of the reservoir in Claremont-square,—in 1777, called the "New Pond,"—a very interesting discovery was made among the State papers of the reign of James I. (for which see the *Builder*, January 22, 1876).

The City-road had the Finsbury, or Shepherd and Shepherdess Fields, on its north, and between here and Old-street, although there were buildings, they were not of an extensive nature. The celebrated resort of the Christ's Hospital boys,—Peerless Pool,—was then in existence; the site is now covered by houses. A continuation of the City-road through Moorfields was then called "Royal-row," while Old-street to the Curtain-road was "St. Agnes le Clare." The district of Hoxton and Shoreditch, long celebrated for its market gardens, was also all open fields, with a few houses here and there, north-west of the Haberdashers' Almshouses, and the "Newington-road," now Kingsland-road, had open straggling buildings after the Ironmongers' Almshouses were passed; as was the case with the Hackney-road on both sides,—the present Bethnal-green-road being a "new road."

When we get into the neighbourhood of Mile-end, houses are more numerous; the Whitechapel end of the present Cambridge (Heath) road was then called "Dog Row," and Cleveland-road "Red Cow-lane." Several original deeds before us give interesting particulars about the Wentworth and Cleveland property in this district—some relating to "Bishops Hall in Bethnall Greene" and the manor; while one letter, dated Old Ford, 7th of January, 1677 (1678), which gives "a foresight of some trouble which may befall the manor of Stepney att the next sitting of this Parliament from my lady Poole, who pretends to bee a great creditor of my Lo: of Cleveland's," notifies that the writer will dine on the morrow at the Nag's Head and Woolsack over against Whitechapel Church. The Nag's Head is still the sign of a tavern opposite the church. Bethnal-green, a century ago, was open fields between the old church there and Whitechapel-road, as was also the ground from thence to Cable-street, St. George's East, a "new road" having been made through them, crossing "White Horse-lane," which lane has since been "improved" into the Commercial-road. Where the docks now stand, and in the vicinity of Old Gravel-lane, were numerous gardens, and beyond, more eastward, were the Sun Tavern fields.

We now cross the river, and find that Southwark, Bermondsey, and Rotherhithe proper, are pretty thickly covered with houses. A fire in Rotherhithe had burnt down over 200 houses in 1765, so that there must have been new building going on on the eve of a century ago. From the swampy and dangerous course of the road, between two ditches hereabouts, one of the main thoroughfares was called "the devil's neck in danger." This was corrupted in due course into the "devil's neckerchief," and subsequently into the "Neckinger-road"! In 1777, Paradise-street, Cherry-gardens, and Marygold-street, give us at least pleasant thoughts of its more primitive state. The Grange, Long-lane, and Snow-fields, had adjoining "open spaces" and gardens, and south of Kent-street the open fields commenced. Newington-causeway was called the road to Croydon, and close to where the railway now crosses the road stood a windmill. St. George's-fields were truly fields, across which were footpaths in various directions, the chief roads across being Great Surrey-street (now Blackfriars-road), the Borough-road, with the obelisk to Lord Mayor Crosby in the centre (as now), the London and the Lambeth (now St. George's) roads. The well-known "Dog and Duck" tea-gardens stood where Bethlehem Hospital now stands (see a print in the *London Magazine*, November, 1791). The only other buildings "in the fields," beyond a few houses here and there, were the King's Bench Prison (having by its north side "Dirty-lane"), "the New Magdalen" (where the Peabody-buildings, Blackfriars-road, now stands), and "the Asylum" (where the Rev. Newman Hall's Christ Church now stands). Between Blackfriars-road and Lambeth Palace continuous fields and market grounds were to be seen. Of course the houses were closer as the river was neared; but the new road to Kennington-common was like other roads newly cut, not yet in the builder's hands. Turnpikes stood not only at the south ends of Newington-causeway and Great Surrey-street, but also at the corner of the Westminster and Borough roads near the Asylum. Opposite Lambeth Palace was the Horse-ferry, and crossing the river were the Tothill-fields.

Such, then, were the boundaries of brick-and-mortar 100 years ago. We have not gone so minutely into the description of the "suburbs" as we should like to, but the facts are sufficiently startling, we think, to cause something more than an ordinary reflection upon the history of the progress of "still-increasing" London since A.D. 1777.

Let us now turn to the little Directory, and see what our guide says about carriages and the means of transit. First, as to hackney coaches. Out of 800 licensed, 200 were to ply on Sundays, taking their turn, under a penalty of 5*l.* for each one plying out of his turn; a licence to cost 50*l.*; no horse, mare, or gelding to be used under fourteen hands high. Their rates of charges were, for a day of twelve hours, 12s. 6d., or 1s. 6d. an hour, and 1s. after the first hour. For any distance under 1½ mile, 1s., and 6d. for every mile after. The rates for "hackney chairmen" were 1s. per mile. "They were obliged to go the same distance for 1s. 6d. which the coaches perform for 1s.," under a penalty of 40s. The porters in the City were called "ticket," "fellowship" (700), and "tackle," otherwise messengers, ship goods unloaders, and goods weighers. They had their rates of charges, and the fellowship porters had a very peculiar custom worth noticing. The next Sunday after Midsummer-day a sermon was preached to them at St. Mary-at-Hill Church, which was usually fully attended by the men, each having a nosegay in his hand, and each passing in procession through the middle aisle to the Communion-table, where he deposited a mite for the relief of the poor. After them the citizens and their families about Bishopsgate, also with nosegays, provided by the men, passed in possession, and made the like offering. "The charges of their nosegays," says the account, "have amounted sometimes to near 20*l.* in one year." The watermen's rates were: between London Bridge and Westminster, oars, 6d.; skullers, 3d.; and the same from Whitehall to Lambeth or Vauxhall, and from London Bridge to Rotherhithe. From London to Gravesend, 4s. 6d. for the whole fare, and 9d. company; Greenwich, 1s. 6d., and 3d.; Purfleet or Erith, 3s., and 6d.; Windsor, 14s., and 1s.; Hampton Court, 6s., and 1s.; Richmond, 3s. 6d., and 6d. Chelsea or Wandsworth, 1s. 6d., or 3d.

The Post-office regulations are curious: country letters were sent and received once a day, but to and from Tunbridge, Margate, Ramsgate, and Sevenoaks "bags every night from Midsummer to Michaelmas only." Sussex posts were four times a week, viz., Arundel, Brighthelmstone (Brighton), Chichester, Shoreham, &c. Postage of a single letter in Great Britain and Ireland "not exceeding one stage," one penny, and 2d. for two stages; 3d. not exceeding eighty miles; 4d. above eighty: all of the three latter "not passing through London." From London to Scotland, 6d.; to Dublin, 6d.; and Donaghadee, in Ireland, 10d. To America, 1s.; Spain and Portugal, 1s. 6d.; Russia, &c., 1s.; Italy, 1s. 3d. These items will give some ideas of the rates. It may not be generally known that a "penny post" was a very early establishment in London. De Laune, in 1681, says,—"This profitable and useful undertaking was the invention of the most ingenious Mr. Murray, and Mr. Dockwra, merchant, by whom it was first set up with much labour and expense before it could be made to answer the end of the undertakers." When it did succeed, the Crown took possession of it as part of the "rights and privileges" of the General Post-office. "The penny post," says De Laune, "is an extraordinary advantage both to the city and country towns adjacent, and is a mighty encouragement to trade and commerce; for, by this ingenious and useful post a man may send a letter or packet not exceeding *a pound weight* for one penny to any part of London, or to any of the towns or villages round about it for fifteen miles compass and upwards." In 1681 the rate was one penny upon posting the letter or parcel, and "the messenger is allowed, for his own pains and care, to take a penny for each parcel or letter at the delivery." In 1777 the same rate was in existence except that the weight had been reduced to *four ounces* (except a general-post letter, which was still a pound), and the penny on delivery was charged only beyond London and suburbs. At all places within London, Westminster, and Southwark the deliveries were hourly, from eight in the morning till ten at night, except Sunday and Christmas-day. In the suburbs there were one or two deliveries daily, according to distance. It was this question of suburbs that raised the important argument in the King's Bench in June, 1777, when the Court decided that Old-street, St. Luke's, was to be considered part of the suburbs, and exempt from the payment of the penny upon delivery. At this date, too, there appears to have been regular district offices, whereby letters were sorted, &c., instead of having to pass through the chief general office in Lombard-street. The head penny post-office was in Throgmorton-street, opposite St. Bartholomew-lane, and four branches, in Clare Market, Coventry-street, Little Tower-hill, and St. Saviour's Churchyard, Southwark. Letters intended for the morning delivery had to be posted at these offices before ten o'clock the night before. All letters for lodgers had to bear the name of their landlord, or the sign of his house; those not delivered would be returned to the writers gratis at the end of three days. "To discover any delay, the triangular stamp on all letters and parcels shows the day they were brought to a principal office, and the round stamp the hour they were given to the letter-carrier." Then, again, we read,—"These offices have suffered impositions and aspersions by money and things of value said to be sent by this conveyance: notice is given, that unless such letters be left *open*, to be so carried to one of the five principal offices, *there seen and entered*, the letter-carrier will noways be made *answerable for their miscarriage*." Those notes of a century ago may be interesting to our readers a hundred years later.

Coming now to the Directory proper, a hasty glance through the list of names may, perhaps, be of more than usual interest:—

Angerstein, John Julius, Insurance Office, 24, Throgmorton-street. The celebrated underwriter and founder of a well-known gallery of pictures.

Baker & Leigh, booksellers, York-street, Covent-garden. Ancestors of the present auctioneering firm of Sotheby, Wilkinson, & Hodge.

Barclay, D. and John, merchants, 108, Cheapside. The house opposite Bow Church from the windows of which George III. and his queen saw the Lord Mayor's Show, 1761.

Baring, John Francis, & Co., 6, Mincing-lane.

Bentley, Nathaniel, hardwareman and jeweller, 46, Leadenhall-street. The celebrated "Dirty Dick."

Boydell, John, printseller and engraver, 90, Cheapside. Proprietor of "The Boydell Gallery."

Bray, Benjamin, haberdasher, 94, Fore-street. Grandfather of W. F. Bray, the builder and originator of the name of King's-cross, and the purchaser of the Gray's-inn-lane Dust-heap, which he sold to the Emperor of Russia after the burning of Moscow.

Calvert, Felix, & Co., Brewers, Campion-lane, Thames-street. Ancestors of the present City of London Brewery Company.

Child, Coles, toyman, 123, Upper Thames-street. Ancestor of the late respected owner of "Bromley Palace."

Cox, James, jeweller, 103, Shoe-lane. Owner of the world-famous "Museum" disposed of by lottery by a special Act of Parliament.

Dilly, Edward and Charles, booksellers, 22, Poultry.

Dollond, P. and John, opticians, 59, St. Paul's Churchyard.

Gurney, Joseph, shorthand-writer, Southampton-buildings.

Harley, the Right Hon. Thomas, alderman and merchant, 152, Aldersgate-street. The house is

the present Albion Tavern. He was son of the third Earl of Oxford.

Kenton, Benjamin, wine merchant, 152, Minories. A benefactor to the Vintners' Company and their almshouses at Mile-end. He died 1802.

Longman, Thomas, bookseller, 39, Paternoster-row.

Martin, Benjamin, optician, 171, Fleet-street. The well-known editor of some fifty historical and scientific works.

Mawbey, Sir Joseph, bart., distiller, Vauxhall. The distillery occupied the site of the ancient Manor House, where, it has often been erroneously reported that Guy Fawkes, of Gunpowder Plot celebrity, lived. Sir Joseph Mawbey was M.P. for Southwark.

Murray John, bookseller and stationer, 32, Fleet-street. The founder of the firm of "Murray," publishers, of Albemarle-street. He died Nov. 9, 1793.

Noble, Francis, bookseller, 325, Holborn. His daughter obtained a share of the first 30,000*l.* prize in the lottery, ever sold. He died in 1792.

Pridden, John, bookseller, 100, Fleet-street. His son, the curate of St. Bride's, devoted thirty mornings, before six o'clock, in surveying and planning the bridging of Holborn-valley, which three-quarters of a century later became an accomplished work under Mr. Haywood's skilful hands.

Sterry, Richard, oilman, 156, Borough. His son Anthony and Thomas Sturge, of Newington, were the great supporters to Joseph Lancaster in his educational work.

Strahan, William, printer, Little New-street. Predecessor of the present firm of Eyre & Spottiswoode, the Queen's printers. In the Caxton Exhibition was exhibited a remarkable letter from Benjamin Franklin (his former brother workman) to him, dated Philadelphia, 1775. At this date Strahan was M.P., for Malmsbury, and Charles James Fox his fellow member. He died in New-street, 1785.

Thrale, Henry, brewer, Southwark. Predecessor of Barclay & Perkins (see Boswell's "Johnson").

Warner, John, & Janson, brass-founders, 108, Fore-street.

Wilkes, John, Alderman, 7, Prince's-court, George-street, Westminster. In 1777, he unsuccessfully contested the office of chamberlain of the City, and in the same year a debate in the Court of Common Council upon the proposal to give him an annuity of 500*l.* to assist him in paying his creditors resulted in its being negatived by a majority of eighty to seventy-three. In Bridge-street, Blackfriars, is an obelisk to his memory.

There are a few out of the many names of 1777 whose descendants or successors still flourish in our city and suburbs. We could augment them, but space prevents it. A few notes of London events during the year may not, however, be unacceptable.

In January, a duel was fought in the Adelphi Tavern, Strand, between a captain and the editor of the *Morning Post* newspaper. It was rather a desperate affair, for pistols were first used, then swords, and both men were wounded. It was all about a lady, to whom the captain was married shortly after!

In February Dr. Dodd was tried for his forgery on the Earl of Chesterfield. He was convicted, and all hopes of saving him proved unavailing. He was hanged at Tyburn.

In May, two prisoners sentenced to death, bricklayers by trade, managed to make a hole in the 6 ft. wall of Newgate and escape. They were, however, soon captured and executed. In August, the same prison was the scene of a terrible riot among the prisoners. In the same month the City freedom was voted, in a gold box, to Sir Fletcher Norton, Speaker of the House of Commons, "for having declared in manly terms *the real state of the nation* to his Majesty on the throne."

In June died two centenarians,—Mrs. Jane Davis, of Hackney, aged 113, and Mrs. Margaret Boise, of Stockwell, aged 107.

In July, H. S. Woodfall, the printer of the *Public Advertiser*, was fined 40*s.* and costs for libel; and in the same month a woman named Anne Marrow was tried and convicted for having married (while in men's clothes) three other women for the purpose of stealing their clothing. She was sentenced to stand in the pillory at Charing-cross, and to be imprisoned for six months. In the pillory, on the 22nd, she lost both eyes through the treatment of the indignant populace.

In September, the Lord Mayor proclaimed Bartholomew's fair as usual, and on his way thither partook of a cool tankard with the Sheriff and Mr. Akerman at Newgate.

In October a man was convicted and fined 100*l.*, ordered imprisonment for two years, and to find good security for three years after for causing a noxious vapour to arise at his factory in Clerkenwell, where he killed and boiled horses. This was the kind of punishment that was inflicted in the good old times upon such offenders.

In November died, aged 78, William Bowyer, of Whitefriars fame, "the learned printer."

The election for sheriffs of London and Middlesex this year was rather startling. No less than a dozen citizens were elected at six elections. Of the dozen, six were fined 600*l.* each for not serving, one died, three declared themselves not worth 15,000*l.*, and the two who served were Robert Peckham and Richard Clarke, both aldermen. It was a custom at that date to elect wealthy men without their consent, who it was known would rather pay fine than serve.

The criminal statistics for the year are by no means cheering to us of a century later. About every other month a cartload of poor humanity, some half a dozen in number, were regularly taken to Tyburn and hanged. There were few offences which were not capital. Occasionally the benefit of the pillory was substituted, as in December, when a perjurer stood at Westminster Hall gate. In May, two prisoners were sentenced to death for robbing the Islington stage-coach on the king's highway near the City-road. Another man just escaped death through the confession of a fellow convict; while another sentenced to death was happily saved through the discovery that the foreman of the jury had made the record a capital charge instead of a minor one!

The last, but not the least interesting of our notes is one on the then lottery mania. Every trade had its "little go," but perhaps the most curious ways of "raising the wind," were the following:—Among the aspirants for public favour were "lottery barbers," where a man for a 1½d. shave stood a chance of winning 10*l.*, and "lottery eating-houses," at one of which in Wych-street, Strand, upon calling for a 6d. plate of meat you had a note of hand, and a number and a chance in a prize of sixty guineas! Again for threepennyworth of oysters, you stood in a fair way of realising 5*l.*; while in a little alley leading out of Smithfield an old lady who kept a stall chalked up "Lottery sausages, or five shillings gain for a farthing relish."

Such was London one hundred years ago.

THE BAUGEWERKESCHULE, STUTTGART.

A FEW years ago, those knowing Stuttgart will remember, on walking through the Kanzleistrasse, a place was reached, called in the map of Stuttgart the "Alleenplatz." What had once been a shallow lake had by degrees been converted into a drill-ground. For a whole decade, masons had then been busy finishing huge blocks of stone for large public buildings. At the present day, what was once a wilderness of rubbish and stone has become charming ornamental grounds, known as the "Stadtgarten," the Town Park, surrounded by artistically important buildings. In the adjoining Kriegsbergstrasse, we see a long series of private residences erected in the Renaissance style; and from the surrounding hills numerous suburban villas, forming a charming girdle, increasing in number from year to year, and projecting, as it were, with their green parks, from the vine-clad heights, beckon to us. And when a visitor casts his astonished eyes at these representatives of modern Stuttgart, when he contrasts the former monotonous square-framed buildings with the new and elegant erections, rich and massive in form, and when he asks for the reason of this change for the better, every intelligent native will give him only one answer. He will tell him that on this spot the two nurseries are reared which have given to Stuttgart its architects, the Polytechnikum, and the Baugewerkeschule (Building Trades' School). From the first have sprung the designing architects; from the latter their working agents, the master masons, the foremen masons, &c. A new generation of architects and working builders has sprung up under the care of excellent instructors, the more modern streets of Stuttgart being witnesses of their ability and the soundness of their instruction.

The Building Trades' School of Stuttgart was founded in 1845, at a time when its elder sister establishments at München and Holzminden (Brunswick) were already in a flourishing state. Like these, it consisted at first of only three classes; but its course of teaching, slowly but surely guided by experience, soon assumed larger dimensions. It includes at present the Building Trades' School proper with six classes, the Engineers' School with five, and the Surveyors' School with four classes, of which some are again divided into sections. The total number of the sections is now twenty, in which, during a week, in 807 hours of instruction, eighteen professors and eighteen assistant masters teach 644 pupils. During the summer term the number of pupils is only 150, and that of sections only eight. There may at present, besides those above mentioned, be about twenty other building trades' schools in existence in Germany; but, except that of Holzminden, none has such a large number of students as that of Stuttgart, and, as regards the course of instruction, the latter is said to be superior to all the rest.

The rise of the Stuttgart school dates from the time when its present director was appointed. On his return from extensive travels in France, England, Italy, &c., a young architect, about thirty years ago, made the remark in Stuttgart, a town in which massive building for private dwellings was as good as unknown, that he intended to build only massively. Indeed, in 1849–50, at a time when building operations were almost at a standstill through revolution and war, misery and high prices, the first massive house was being erected after the designs of the architect whose present work we are considering. But almost another decade and a half elapsed before in the new Polytechnikum a building was completed in which noble forms of architecture and beauty of native material were vividly brought before the Stuttgarters. It is only about ten years since that substantial construction in ashlar stone and brick became more general for private residences.

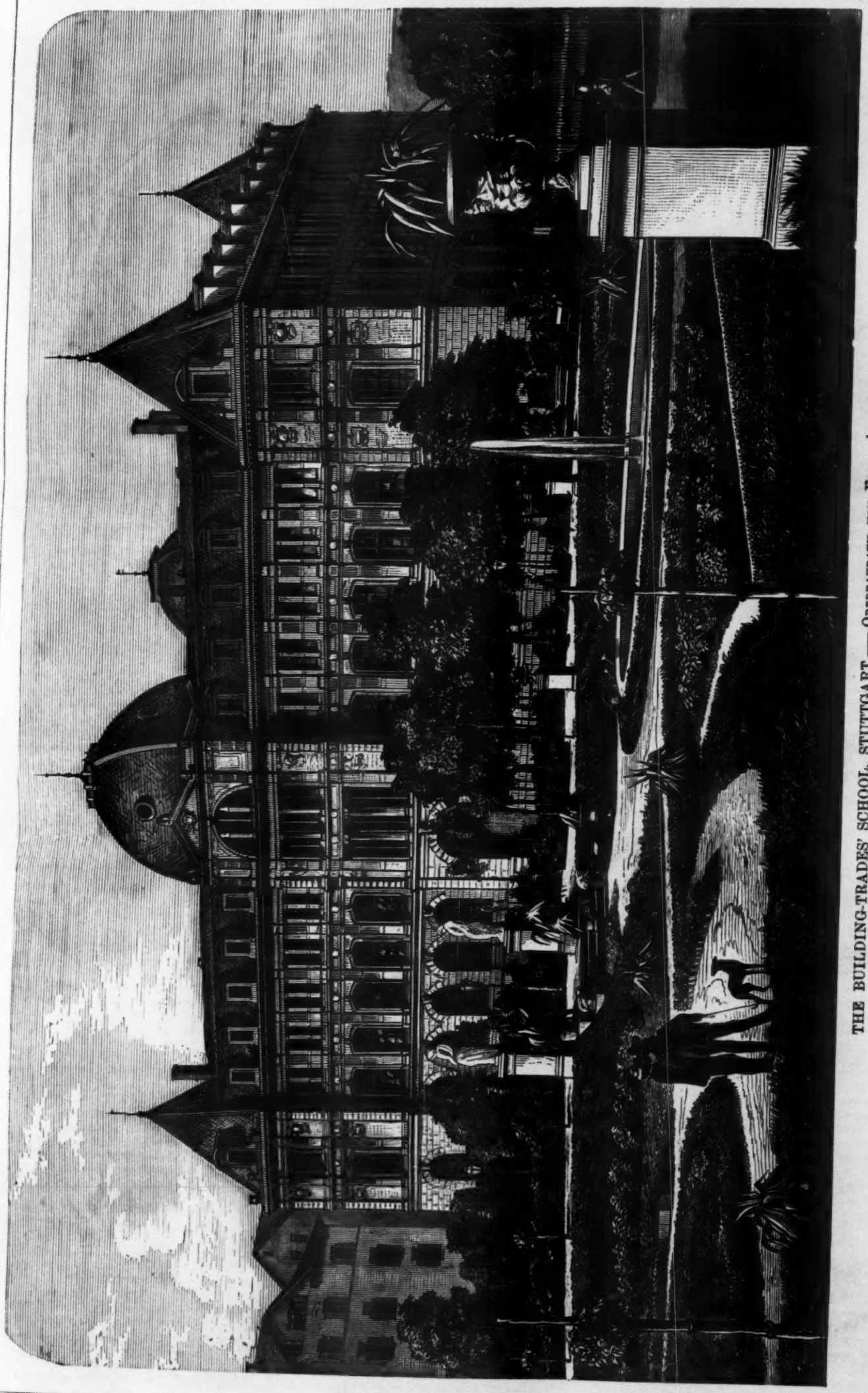
The careful, not to say parsimonious, finance administration of Würtemberg had refused to the Baugewerkeschule for a long time the means for a new building, and, when the latter had become an imperative necessity, had granted insufficient funds, because it was of opinion that the school had reached its highest point with 570 pupils. Two additional halls provided for in the plan were omitted as unnecessary. But during erection it was found, in consequence of the increasing number of students, that it was necessary to enlarge the design—a step which has not been without influence on the outward appearance of the building.

The oblong building consists of four wings, divided by a centre block in such a manner as to form two courts, almost square in shape. The ground-floor, rising upon a powerful socle, is of red heavily-bossed sandstone; the two upper stories being of yellowish-grey sandstone. The windows of the ground-floor are circular-headed, those of the first-floor have segmental arches, while the upper story has rectangular window openings. The high roofs, which have taken the place of the originally projected flat roofs, because only in this way could the at first denied extent of useful space be secured, became necessary in consequence of the limited means granted. The corner turrets project slightly; the central projection is especially effective, forming an independent part of the building, and being closed by a powerful square cupola. The walls of the projecting parts are adorned with decorated escutcheons. They are, like the principal frieze, designed to receive the heads, names, and masons' signs of eminent masters, architects, *savants*, and such like.

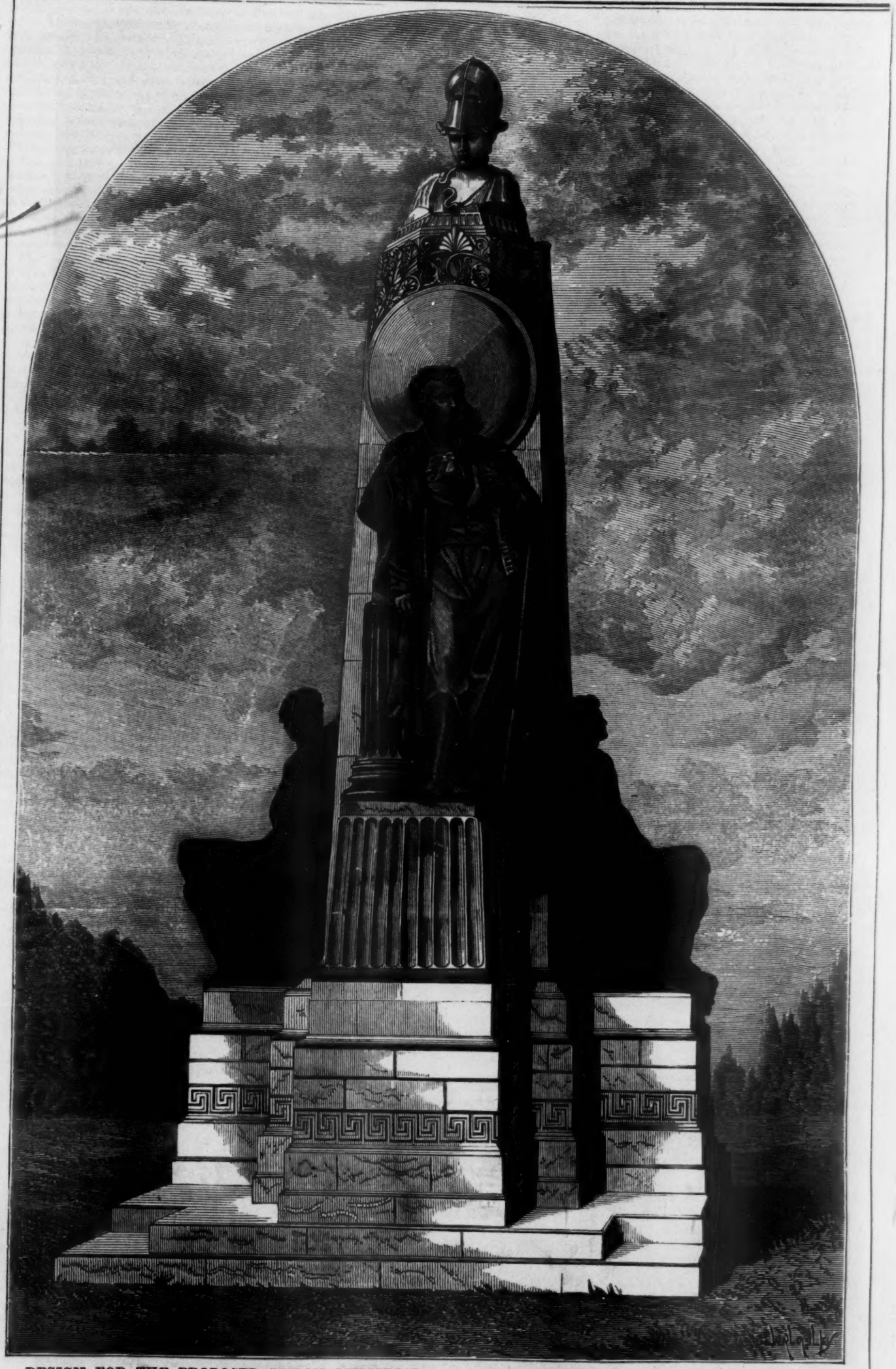
The four wings of the building cover an area of about 23,000 square feet, and this space is completely utilised in the three floors. Inclusive of the attic story, an available space for class-rooms, rooms for collections, offices, &c., of nearly 56,000 square feet has been obtained.

On entering the porch through the vestibule, the principal staircase, carried through two stories, is facing us. In the centre block are the great halls; the corridors, facing the courts, are in no wise interrupted by them, but run right through, thus connecting all the rooms of one floor. Between every two school-rooms there is a room for the masters and the storing of school appliances.

The courts, built after the manner of the courts of Italian palaces, offer, in their application for



THE BUILDING-TRADES' SCHOOL, STUTTGART.—OBERBAURATH VON EGLE, ARCHITECT.



DESIGN FOR THE PROPOSED BYRON MEMORIAL: TO WHICH THE COMMITTEE AWARDED THE SECOND PLACE.
MR. H. HEATHCOTE STATHAM, ARCHITECT; MR. R. R. MULLINS, SCULPTOR.

school purposes, a new phenomenon,—a feature the excellence of which will be apparent at the first glance. Being covered over, they may be warmed in winter, and, while serving as places of recreation for pupils, are at the same time designed to be used as a museum, displaying interesting parts of architecture, able productions of the scholars, &c. This purpose is greatly seconded by an abundant flow of light from above. Three sides of these courts are each divided horizontally into three bays; the arches of the ground-floor resting upon solid, finely-formed columns; the arches of the first story being supported on coupled Doric pillars; while in the upper story the bays, cut off rectangularly, are doubled; delicate Ionic pillars, and between them columns, rising above the arches of the lower stories.

The friezes of the courts contain, in chronological order, and continued to the present day, a number of ornate inscriptions serving as monuments for a large number of architects, sculptors, painters, and men of science renowned in the annals of architecture. Likewise divided into three panels, we find on the walls of the central block, capitally represented, the six principal epochs of architecture: the Pyramids of Egypt, the Acropolis of Athens, the Forum Romanum on one side, the Romanesque and Gothic architecture, and works of the Renaissance, on the other side.

The space, one side of which is occupied by this Baugewerkeschule, the other side being taken up by the Kriegsbergstrasse, is yet awaiting its architectural completion. The next step in this direction is the enlargement of the Polytechnikum, which has become imperatively necessary. On the fourth side of this space will probably be reared the new Gewerbehalle, or Trade Hall.

A DESIGN FOR THE PROPOSED BYRON MEMORIAL.

OUR readers will remember the recent competition of the designs for the Memorial of Byron intended to be erected in London. We depart a little from our usual course in illustrating a design which is not to be carried out, and we do so because at any rate it presents an idea, and an idea that is satisfactory.

The general form of the monument was adopted with the object of producing something which would give a background for the principal figure (thus avoiding the almost invariably unsightly effect of an open-air statue seen from the rear), and would bear looking at all round. An erection of the nature of an obelisk or stele seemed to fulfil this object practically, and to be suitable from its association with monumental design. The idea of the whole design is to commemorate Byron in the double character of English poet and Greek patriot. The stele is surmounted by the head of the tutelary goddess of Athens, whose shield, suspended below, forms a kind of nimbus behind the head of the poet; and the figures on either side represent respectively Poetry and Chivalry. On the fourth side of the stele was to be the inscription, "Eogland and Greece to Byron"; the marble for the pedestal having been offered, as will be remembered, by the Greek Government. The helmet and shield of Pallas were intended to be gilt; the three figures of bronze.

The principal figure was designed and modelled, and the subordinate figures sketched in clay, by Mr. E. R. Mullins; and Mr. H. Heathcote Statham supplied the architectural design and the general idea and grouping of the whole.

Royal Architectural Museum.—The art classes at the Royal Architectural Museum will re-open on Monday, October 1st. The men's "Life" study class resumes its study on the following Saturday, October 6th, on which day the Ladies' class meets. The Art Workmen's class occupies the evenings of Mondays, Wednesdays, and Fridays in each week. These classes are held in connexion with the Science and Art Department, and are under the direction of a fully certificated master, while the students enjoy the advantage of using the extensive collection of casts and examples in the Museum. The new sketching club will also commence its duties. The Council of the Museum offer prizes and an annual exhibition will be held in connexion with the club. Full particulars may be obtained of the curator, at the Museum, Tufton-street, Westminster.

THE HALF-YEARLY MEETINGS OF THE RAILWAY COMPANIES.

THE official reports presented to the shareholders at the summer half-yearly meetings of the several railway companies reveal the fact that new works on a scale of great magnitude continue to be projected, and are in progress on many of the leading and other lines, at an enormous outlay of capital. Some interesting statements on this head were made at the meetings of many of the companies, the Midland amongst others. The report of the *Midland* stated that the total revenue receipts for the half-year amounted to 3,017,290*l.*, being an increase as compared with the corresponding half-year of 1876 of 65,684*l.* This increase applies to every source of traffic, the increase from passengers being 47,648*l.*, merchandise 10,338*l.*, minerals 4,870*l.*, and cattle 2,828*l.* With the exceptions of the London and North-Western and the North-Eastern Companies, this sum represents a larger amount in traffic than that of any other railway in the country. At the meeting, the chairman, Mr. Ellis, adverting to the enormous expansion of the company and its ramifications, said that in 1844 the Midland Company, which had now completed one-third of a century, was formed by the amalgamation of the North-Midland, the Midland Counties, and the Birmingham and Derby railways. The capital of the united company at that time amounted to 6,327,000*l.*, whilst at the present time it amounted to 65,747,000*l.* The revenue at the time of the amalgamation was 555,000*l.* annually, or a little more than 10,000*l.* a week, whereas now it was 6,217,000*l.*, or about 120,000*l.* a week. The capital expenditure during the past half-year had been 1,462,000*l.*, of which 705,000*l.* had been expended on lines open for traffic; 373,000*l.* on lines in course of construction; and on other lines in which the company had an interest, 311,000*l.* In addition 114,000*l.* had been expended for land at Bradford; 58,000*l.* of a further expenditure on the Derby locomotive and carriage shops; and 122,000*l.* in London, principally for land at Blackwall. The estimated further expenditure for the current half-year was one million sterling,—viz., on lines open, 312,000*l.*; lines in course of construction, 466,000*l.*; and on joint lines in which the company had an interest, 222,000*l.* The chairman added that the directors were not able to assure the shareholders that this estimated expenditure would be less than a million. Beyond this the company obtained powers in the late session of Parliament to expend an additional sum of 1,921,500*l.* in still further new works. The company now maintained 2,227 miles of single line, of which 1,032 miles were laid with steel rails. The engineer reported at length upon the progress which is being made on the several new lines in course of construction.

The *Great Northern Company's* report showed that the traffic receipts during the half-year amounted to 1,413,642*l.*, as compared with 1,399,484*l.* in the corresponding half-year of 1876. The report further stated that the expenditure on capital account during the half-year, namely, 1,039,113*l.*, had been unusually heavy, owing chiefly to the progress made with the new lines in Derbyshire, Staffordshire, and Leicestershire, on which 506,572*l.* were spent during the last six months. The sanction of the proprietors was required for a further expenditure of 83,126*l.* for the enlargement of stations at different points along the line, in addition to the heavy new works in progress. The chairman stated at the meeting that the two unfortunate accidents at Abbot's Rippon and Arlesey Siding had cost the company no less than 100,000*l.* for personal compensation. Adverting to the new works going forward in different portions of their district, he pointed these out from a map of the Great Northern system, which was for the first time exhibited in the room. These works included the several new lines in the counties respectively of Derbyshire, Northamptonshire, Lincolnshire, Leicestershire, Yorkshire, and Staffordshire, comprising a total mileage of about 140 miles. He also observed that the first two tunnels leading out of King's-cross Station had been doubled. The widening of the Maiden-lane tunnel, he added, was very difficult, as the tunnel passed under the Cattle Market and Regent's Canal, and consequently the works had occupied a considerable time. The Copenhagen tunnel was finished, and in working order, and the goods trains now left the passenger lines at a point five or six miles north of King's-cross, and ran over the goods lines from that point, completely cutting off the passenger-lines, into the goods station. Speaking of the block system and interlocking signals, upon which they had spent 309,886*l.*, he said that they had to maintain 568 miles of railway, and that on those 568 miles they had 444 signal-boxes, the cost of which, including the signals and interlocking apparatus, averaged from 500*l.* to 850*l.* per box.

In the *Builder* of the 1st of this month we gave some detailed and interesting statistics as to the extent and ramifications of the London and North-Western Company, showing, amongst other things, that the half-yearly traffic returns amounted to 4,800,000*l.* At the recent meeting of the company the sum of 1,431,383*l.* was authorised to be expended on new lines and additional works, under the Act obtained last session, in addition to the extensive works now in progress. The engineer reported that the new tunnel at Primrose-hill, 1,181 yards in length, was successfully completed on the 30th of June last; also that the new stations at London-road and Kilburn, and the enlargement of the Willesden Station, were in progress, and that upon these works being finished the several stations between London and Bletchley will be complete. The engineer also gives detailed particulars as to the progress of the several new lines and works in various parts of the country which the railway intersects. Amongst the most important of these is the widening of the line between Longsight and Ardwick at Manchester, in order to form six lines of railway. This work involves the construction of a viaduct of great length, and the engineer states that the whole of the piers on the east side of the viaduct, and twenty-five out of the forty-four on the west side, are already built to the required height, and the arches are being turned. Of the thirty-five bridges to be built in connexion with the Seaton and Wansford line, fifteen are now in course of construction. All the bridges for carrying the various streets over the four lines of rails, in connexion with the enlargement of the Lime-street Station, at Liverpool, are completed, and the scaffolding for the large roof of the station is ready to receive the ironwork, which is in course of delivery. Considerable progress has likewise been made with the excavation and arching on the branch to the north docks at Liverpool. The harbour and dock works at Holyhead are also making great progress. Of the 800 lineal yards of quay walling, 600 yards are completed, and the graving dock is likewise going forward. The erection of the new station and hotel at the south end of the quay are to be commenced in the autumn. The estimated cost of the station and hotel is 60,000*l.* The large goods warehouse at Broad-street Station, in the City, is in an advanced state, and tenders have been received for the erection of a new goods warehouse at the Poplar Dock Station. The engineer further observes that the contractors for the new and enlarged station at Preston are making fair progress with the works, considering the difficulties that have to be contended with owing to the heavy traffic passing through the station. In his address at the meeting the chairman made a pointed reference to the Artisans' Dwellings Act in connexion with rates and taxes, which were increasing upon them. "I am afraid," he said, "that this Artisans' Dwellings Act may,—I will not express any opinion as to its advantage or disadvantage,—but it will make the burdens on the lines going through all the large towns enormously heavy for some years to come. How far we shall be worse off than anybody else is a different thing, but we still, under our unfair modes of assessment, are made to pay more than any one else, and we believe that nothing will cure it but the burden which is clearly coming upon the inhabitants of the great towns themselves."

The *Great Western Company's* report showed a net increase in the traffic receipts during the half-year, as compared with 1876, of 39,907*l.*, made up of an increase in merchandise and minerals amounting to 56,289*l.*, but a decrease in passengers of 16,382*l.*, which the Chairman attributed to the widespread depression in trade. The report stated that the heading of the Severn tunnel had been driven to a distance of 1,600 yards. The formation through which the work was now passing was still the Pennant sandstone rock, which was found in strong beds, and almost free from water. The works on the new wharf and depôt of the Bristol Harbour Railway had been completed, and were in use. The Chairman, remarking upon the Severn tunnel, said that

having had no tenders for the whole work which they could accept, they contemplated doing the work by smaller contracts for particular parts of the undertaking. The large contractors put down sums which the Board thought far too large for contingencies, which, considering the strength and compactness of the beds to be tunnelled, must be very small. A great deal had been spent on the works at Bristol, and he believed that the result would be great satisfaction and goodwill from the citizens, and profit to the company. The sum of 322,720*l.* was granted at the meeting for additional new works, which, amongst others, embraced 20,000*l.* for a new line at Paddington, between Bishop's-road and Westbourne Park stations; also 15,300*l.* for new stables, and 16,000*l.* for extension of wagon-shops, both at Paddington. Also, 14,000*l.* for new gasworks and extensive workshops at Swindon; 20,000*l.* for the Plymouth Great Western Docks; 15,000*l.* for new passenger stations at Brierley-hill, Landore, and Smethwick; 60,000*l.* for the Netherton and Halesowen branch; 6,100*l.* for new goods station at Bath; and 100,000*l.* for additional lands.

From the proceedings at the *Great Eastern* meeting it appeared that the gross revenue from all sources during the half-year was 1,294,770*l.*, against a gross revenue of 1,289,303*l.* in the corresponding half-year of 1876. The report stated that during the last three years a large expenditure had been incurred in the renewal of permanent way, and in the conversion of timber bridges and viaducts into brick and iron structures. The line had been specially inspected by direction of the board, and on the recommendation of the engineers, and with a view of taking advantage of the exceptional state of the steel and iron market, it was proposed to purchase at the present low prices permanent way materials largely in excess of the quantity required, for the ordinary maintenance, and to push on more quickly the process of relaying the line and the reconstruction of bridges than the directors would have considered it desirable to do if the price of steel and iron had not been so favourable for the purchaser. The chairman, adverting to the works at Stratford, said that during the last four years 20,000*l.* had been expended in getting new machinery, so that a boy with 16*s.* a week would do the work of six or eight men taking 6*s.* or 7*s.* a day each, and would do the work much faster. Referring to steel rails, he said that up to 1872 they had only put 3,000 tons of steel rails into the line, and a single line of railway required for each mile about 125 tons 10 cwt. of steel rails of 80 lb. a yard run. But since 1872, in addition to the lines they had newly opened, they had put in 21,150 tons of steel rails, and they had now steel rails laid upon more than 200 single miles of their railway. They had tested a line of steel rails upon the centre line of the Blackwall railway, over which more trains ran than over any other railway in the kingdom, and they found, after three years, that the wear of those steel rails was one-twelfth of an inch, and that at that rate of working the steel rails would last over thirty years, whereas the iron rails would only last for three years. If they were to go on laying their line as they had done during the last half-year, in six years they would have a line which would last far beyond the memory and knowledge of the youngest shareholder present. The chairman next dwelt upon the necessity of the company having a communication with the north, and with the manufacturing districts, and with the Midland districts of England. They communicated with the docks and direct with the river, and there was being made in the neighbourhood of London, in extension of the Victoria Dock, a dock unexampled in the world in point of size and of the accommodation it would give, and he would venture to say, though he was chairman of one of the London docks, that there would be at that dock one of the largest trades which was brought to any port in the world. That being so, they ought to get such an access to the north as would utilise their head, and if the Great Northern Company were not prepared to come to terms with them to effect this object they had no option but to seek independent access, or access by means of some other company.

The report of the *London and South-Western Company* stated that the net revenue of the company for the half-year was 207,309*l.* as compared with 204,938*l.* in 1876. The report at some length detailed the progress which was being made in the various works going forward. The Chairman, in the course of his remarks, said that the principal works in which they were now engaged were the enlargement of the Waterloo terminus and the diversion of the main line at Nine Elms. As soon as these works were finished, they would give them very great facility in working the important traffic there. At Nine Elms they had been obliged to divert traffic in order to take in a part of their property to meet the requirements of the goods traffic. They had been subjected to two floods during the last exceptional winter. Some people said they were caused by the Thames Embankment; some assigned one reason and some another; but there was this fact, the water came up to the top of their wharfs, and they had now taken measures to prevent a recurrence of this.

The *North Eastern Company's* report showed that the present capital of the company stood at 53,972,222*l.* The gross traffic receipts for the half-year amounted to 3,058,816*l.* as compared with 3,142,245*l.* in 1876, showing a decrease of 83,429*l.*, which was attributed to the great depression, more particularly in the iron trade. The outlay on new works during the half-year amounted to 616,322*l.* Mr. Leeman, the chairman, in referring to the new station at York, which was opened in June last, observes that there were few stations in this or in any other country which could compare with that station, whether in regard to its elegance of design or its thorough adaptation to the wants it was intended to meet. For that station the company was greatly indebted to Mr. Harrison, their engineer, who had designed it. The structure had been well carried out, both architecturally, engineeringly, and economically, and whilst the building was one of great elegance and attraction, utility had formed its leading feature. The hotel was expected to be completed and opened next year. The engineer's report described the progress of the several new works in hand, and stated that the Hartlepool Dock Works were expected to be completed and opened next year, as well as the Leeds joint station extension, and several other new extension lines.

With respect to the *South-Eastern* and *London, Chatham, and Dover Companies*, the receipts of the former showed a slight decrease, while there was an increase in the latter amounting to 29,243*l.* In the course of his speech the chairman of the South-Eastern Company said that the state of the measures for improving Boulogne Harbour looked very favourable, and he believed it would be effected by French capital and by French skill and engineering, in a way that would be satisfactory, when they (the South-Eastern Company) would put on new and more powerful boats between Folkestone and Boulogne. The report of the *London, Brighton, and South Coast Company* showed that the capital expenditure during the half-year was 236,128*l.*, of which 52,932*l.* was on account of the Cliftonville spur line, and 50,520*l.* for the purchase of Deptford Wharf. The receipts for the half-year showed an increase of 21,891*l.* as compared with the corresponding half-year of 1876.

The report of the *North London Company* stated that the works in connexion with the new docks and warehouses at Poplar had been retarded by the wet weather in the early part of the year, but were now proceeding rapidly, and were expected to be completed next spring. The chairman stated that they had expended 113,000*l.* during the half-year for constructing the dock and warehouse, and apparatus round the dock to make provision for some of their neighbours—the London and North-Western, the Great Western, and the Great Northern—and those companies had engaged to use the dock, warehouse, and apparatus, and to pay the company six per cent. for the entire outlay. The traffic receipts of the company showed an increase of 7,999*l.*

At the meeting of the *Metropolitan Company* the Chairman stated that there had been an increase in the year of passengers carried, of about one million and a half, and an increase of money of 11,400*l.*, the increase of expenses to earn that money being only 1,685*l.* Powers were granted to the Board, under the Authorised Act, to extend the Metropolitan and St. John's Wood line in the direction of Kingsbury and Harrow, the Chairman stating that there were lying around there valuable pieces of land which would be built over and produce a new source of traffic.——The *Metropolitan District Company* at their meeting, agreed at once to proceed with the construction of the Ealing Extension line, for which powers were granted in the last session of Parliament, and also passed a resolution guaranteeing the promoters of the Inner Circle Completion Line (between the Mansion House Station and Aldgate) 64,000*l.* per annum on the line being finished and opened. The increase in traffic receipts, as compared with 1876, was 4,278*l.*

The *Lancashire and Yorkshire Company's* report showed that 676,050*l.* had been expended on new works during the half-year, and that the traffic receipts amounted to 1,738,371*l.*, as against 1,724,271*l.* during the corresponding half-year of 1876. The Chairman stated that the new dock and timber-pond at Fleetwood, which is to be opened this month, is excellently adapted for accommodating ships, and that the timber accommodation in the large pond was extensive and convenient. Several firms of good position had already applied for timber accommodation and other traffic.

A MASON TO MASONS.

Sir,—A retrospect of the past has often a tendency to improve the future. Pray give me space to attempt it.

That man or that society that will never acknowledge a wrong is not very likely to improve. Between forty and fifty years since there were in London three classes of masons, viz., White, Black, and Grey.

The Greys, as a matter of course, were the oldest. These were a society before the Operative Stone Masons' Society came into existence. The Greys were the masons of London exercising very little influence beyond home.

The Whites were called by the Greys "Long Roaders," by reason of their being so fond of striking and tramping. When the construction of railways commenced, the "Long Roaders" Society soon began to exercise a great influence in the trade. A London mason would have been very ill-fitted in those days to perform the work done by these Long Roaders,—to tumble rough huge stones about in the mud and mire, roughly hewing them to turn arches in tunnels, and to work in those tunnels under centres often, feebly constructed, splitting and cracking during the time you were working, and oft times by the fall of heading on the centres, crushing centres, masons, and labourers in one confused mass.

It was but the natural course of things that these Long Roaders should be under the necessity of tramping. A tunnel or a bridge finished in one locality, their services would next be required some forty or fifty miles distant. It was of such materials as this that formed what is now called the Operative Stonemasons' Society. The old society of the Greys has long been absorbed in the O. S. M. Society, so that masons are now either called society or non-society men.

It is now just forty years since that those remarkable buildings that we call the Houses of Parliament were commenced. Messrs. Peto & Grissell were the contractors, Mr. G. Allen the principal foreman. A very important lesson might be learned by the masters of the present day in studying the precedents of the great strike which took place just thirty-six years ago. Mr. G. Allen was a very good mason, and I will also add a very good foreman; a little of the rough-and-ready about him, but the masons did him a monstrous injustice by striking against him. Mr. G. Allen did not display that discrimination of human nature that was calculated to preserve peace. He knew all about White, Black, and Grey; he knew that Greys were opposed to strikes, fond of home, and did not like to leave London unless sent out by the masters. He knew, also, that the Blacks were of an independent spirit, and would not be brought under the tyranny of the Long Roaders if they could avoid it. If the Whites began the Houses of Parliament the Blacks finished them. If Mr. G. Allen had properly mixed his colours there would have been no strike. Say, for instance, a mason applied to Mr. G. A. for a job, he would often ask the question,—"Have you got your card? If not it is no good to come here." Hundreds joined the O. S. M. Society purposely to get a job at the Houses. Mr. G. A. was thus nursing a viper that afterwards darted its poisonous fangs in his bosom. A deputation waited on Peto & Grissell to demand Mr. G. A.'s removal or discharge. Here was a combination of impudence and ignorance unequalled, one might think! Peto & Grissell refused compliance. The masons at the Houses withdrew. After a week or two the granite masons at Nelson's Monument were commanded to withdraw also. Peto & Grissell

remained obstinate or firm, whichever you like to call it. The same firm had also a large contract at Woolwich Dockyard. To use Mr. Nisbet's language, they were "compelled," in self-defence, to command the masons of Woolwich to withdraw.

The most heartless and cowardly act committed by the O. S. M. on this occasion was the calling out of a large number of granite masons on the Forest of Dartmoor. These rough-hewers of granite were, with their wives and families, living in cottages provided for them by the Messrs. Johnson, proprietors of the granite quarries. These rustics knew no more about Mr. G. Allen than they did about the Emperor of China. But they were roughly squaring blocks of granite for the Nelson Monument and also for Woolwich Dockyard. These foresters were turned out of house and home. Men from Scotland and Cornwall filling their places. In three months this warlike strike was at its height. Peto & Grissell's agents, at great expense, were gathering masons from different counties. The O. S. M. Society's pickets were waylaying those recruits and bribing them to return home. On the fourth and fifth months things began to look gloomy,—a total eclipse,—this so-called white job became black. Peto & Grissell remained masters of the situation. The influence of the O. S. M. Society was for many years completely crippled. The victory cost the firm 15,000*l.* They sacrificed interest to principle.

The lesson to be learned from this strike is this,—if Mr. G. Allen had kept his job open to all applicants the O. S. M. Society men would have been in the minority, and such a monstrous demand as this would never have occurred. For the next sixteen years, from 1842 to 1858, the London masons enjoyed a peace. The four o'clock movement on Saturdays was given generally by the majority of the masters freely in 1848. Soon after this the wages were raised from 5*s.* to 5*s.* 6*d.* per day. After these sixteen years of comparative peace, the next movement was called the nine-hours movement, and to leave off at one on Saturdays, making eight hours deduction from the usual time. This request the masters refused to grant. A strike against one firm was the consequence, viz., Messrs. Trollope's. A general lock-out followed. This inflicted great privations on thousands of families. Whose fault was this, men's or masters'? We may answer this question by another. Who struck the first blow? To heal this strife the masters proposed payment by the hour. This was refused by the O. S. M. Society with great indignation. A host of writers were sending letters to the papers on this new form of cruelty and oppression. Two or three barristers who have generally a good stock of vituperative language poured their vials of wrath on the heads of the masters.

Let us pause and ask the question, could any thing better than the hour system have been adopted? Ten hours had been called a day up to 1861. The O. S. M. wanted nine hours to be called a day. Had the masters any right to have a voice in the matter? Their proposition was 7*d.* the hour: working the same amount of hours would have been 1*s.* 1½*d.* per week in advance of past payments of 5*s.* 6*d.* per day. The O. S. M. did not want this extra money; they wanted more time to improve their mental and intellectual faculties. That those mental powers required improvement I will admit, but the improvement made since then I very much doubt.

In conclusion, let us contemplate the present strike. Go into some low neighbourhood. Look into the apartments of the houses here: you will find a wife and four or five children, the husband, a hard-working man, working twelve or thirteen hours per day for wages varying from 20*s.* to 30*s.* per week.

There is a strike among the colliers in the North of England. Through this strike coals are raised in price from 1*l.* to 2*l.* per ton. Instead of having the cwt. of coal, this poor family must make ½ cwt. do; the family feels the effects of that strike bitterly if it be winter. Say the bread-tax were re-imposed as it was previously to 1848, and bread became 1*s.* the quartern loaf, the family must do with less. Or a combination among cattle-dealers and butchers, and animal food became 1*s.* 3*d.* per pound. Coals, 3*l.* per ton, bread 1*s.* 3*d.* the quartern, animal food 1*s.* 6*d.* the pound, would scarcely be felt by the upper ten thousand: they would still have enough and to spare. But the upper ten form a very small part of the public; the great bulk of the public are those that are far worse off than the operative stonemasons. Coals, bread, and animal food are the necessaries of life for the poor. And is not a good home of equal necessity? What ought to be had by way of a home for 5*s.* you want to make cost 7*s.* 6*d.* If you could make the extra cost of homes fall solely on the upper classes you would have some excuse; if you had 1*s.* 6*d.* per hour they would scarcely feel it. But the man that labours to build a cottage for the poor expects as much wages as the man that is engaged to help build a palace for the rich and great. The O. S. M. are dependent on the produce of others for those articles that are requisite to sustain life and make it comfortable. Suppose all these various classes follow your example and strike for an advance, your strike in this case would be useless,—you would gain nothing. Are you worse off, more heavily oppressed, work harder, and worse paid than those classes on whom you have to depend for a supply? You seem to me like a lot of over-indulged children, sulking and refusing to eat your bread and butter, crying and whining for some sugar to put on the top of the butter. Look at your bread: it is really well buttered.

If you do not believe me listen to your chairman, Mr. Broadhurst, who boasts that the O. S. M. are in a position to sustain a six months' strike. You can either go and work for 9*d.* per hour during the coming winter, or walk about like gentlemen on strike-pay. Being a mason myself I want to teach you one lesson: I want you to perform the most noble deed that can be performed by men:—1. Acknowledge that you are wrong; 2. do the utmost that you can to repair that wrong; say you have made a mistake, to which all men are liable. Go to work quietly and in good order; it will be better for yourselves, better for your families, better for your employers, and better for the public at large, and you will prove that you are wiser than your fathers, who conducted previous strikes.

JOHN GRIFFIN.

"PEERAGE PROPERTY."

SIR,—I am glad that your correspondent, the gallant defender of the aristocracy in general, and the Duke of Devonshire in particular, calls himself "Fair Play." Fair play is all that I ask from the great landholders to the people of this country. Fair play is just what I complain of the poor land-drudges, and all the other struggling classes of this country, never getting, and I am, therefore, delighted to be placed in correspondence with one who fights under that flag, especially through the columns of the *Builder*, the great organ and mouthpiece of the building trade, in which I am bound to say there is more sound, genuine, honest fair play than in any other trade or profession in England. Now, in answer to "Fair Play" (page 916), I beg to state that I never mentioned the name of the Duke of Devonshire. I am not often so bold as to mention the names of my "betters," and I am sure I would not say a word against a great member of the Liberal party for the world; but as "Fair Play" *will* name the Duke of Devonshire, I must take him up upon his own example, and I ask if it is fair play that Chatsworth Palace,—the king of palaces and paradises,—should pay about 50*l.* a year for taxes,—less than an ordinary London house pays?

Eastbourne, I dare say, owes a great deal to his Grace the Duke of Devonshire, and if he has so improved that delightful watering-place entirely on account of his good feelings to the people of the place, I should be the last man to refuse to give him credit for it. Even if he is merely making a good speculation,—even if he is making fifty times as much of his land as he would do for agricultural purposes under a rotten tenure system,—he is doubtless doing good to others for the time being; but after so many years every brick, stone, beam, roof, and fixture of every kind, for which his Grace has never paid one penny, will have to go into his Grace's family, and the posterity of the builders and purchasers of this property will have to set to work again, because they do not belong to the charmed circle of the landowners. I think the grateful investors of Eastbourne will pay rather dearly in the end for the Duke's generosity. I may admit that his policy with regard to his Eastbourne property is "wise and liberal," but it is especially so towards the interests of his own family, and I cannot say that I blame his Grace for this. I rather admire his enterprising spirit, but would rather not leave the whole country to the generosity and good feelings of dukes, lords, and squires. But the Duke of Devonshire builds churches as well as houses! His Grace is wise in his generation,—he knows that when you want to create a neighbourhood, you have first to build a church. Only build a church, and you have an excuse for a number of other buildings,—public-houses, for instance,—for, sir, you know the adage,—

> "Where'er God rears a house of prayer
> The devil builds a gin-shop near."

However, I do not object to any sort of building whatsoever, whether for beer or Bible, and I quite agree with the policy of building churches as centres of neighbourhoods. Only our friend "Fair Play" seems to think that "the duke merits the gratitude of the whole country," which I do not quite agree with. Again, the noble duke has founded a college in order to supply these churches with ministers. I think that is very wise of his grace, for I am quite sure that the existing colleges do not supply parsons at all likely to attract congregations to the new churches. But I ask, is the college mentioned intended for young gentlemen or the sons of labourers? I am afraid few of the latter class will ever find their way into them. But never mind,—we have popular education, which is destined to give a help to the people, and is bound to be a blessing to the country at large.

"Fair Play" says, "That England, on the whole, has great cause for thankfulness that it possesses a wealthy aristocracy, surely any reasonable and cultivated man will not deny." Well, perhaps I am not a reasonable or cultivated man, but I most certainly deny *that*. I am reasonable enough to admit that there have been some noble exceptions to the rule of idle, vicious, and tyrannical nobility and squirearchy. I am enough of a liberal to be thankful for such an aristocrat as Lord Russell, and I am evangelical enough to be thankful for such another as Lord Shaftesbury, but that cannot be a sufficient reason why England, *as a whole*, should be thankful for a wealthy aristocracy. England as a whole cannot thank a few families for monopolising the land of the country while they leave the majority of those who toil upon it to semi-starvation, enforced ignorance, and hovels to live in scarcely fit for pigs, through which the most horrible immorality prevails in our rural districts.* Why, sir, many of the inhabitants of our towns think our villages to be the very homes of immaculate virtue, cleanliness, and health, when in reality they are mostly composed of overcrowded fever-dens, in which all ages and sexes lie huddled together at night, in which are to be found the swaddling clothes of birth and the grim casket of death in the same room with the supper of the tired labourer when he comes to his "home."

GEORGE MITCHELL,
"One from the Plough."

ANCIENT GREEK ART.

THE productions of Greek genius are all marked by the same great characteristics. That element of the graceful and beautiful, of the tranquil and stately, which is set forth in the masterpieces of Greek sculpture, is also the highest merit of Greek mythology, philosophy, and poetry. In no other country has the literature been so pervaded with the fine arts which grew up along with it, or have the fine arts so embodied the spirit of the literature. To realise this fact is of the first importance to a classical student. The boy that comes without previous preparation to read the Attic tragedies is sure, however talented, to find much that to his taste is insupportably stilted and austere. Nor can we wonder if, even when he has acquired a tolerable mastery over the Greek language, he is still unable to appreciate properly the Attic drama. Few, indeed, are the English scholars who penetrate far into it, despite the excellence to which the composition of Iambic verse has been brought at our universities. The reader of Plato and Aristotle studies auxiliary manuals and text-books as a matter of course, but it would be

* The Rev. Canon Girdlestone at the Church Congress held at Bath in the autumn of 1873, spoke of our rural districts as being "covered with cottages which were in too many instances hovels in which not one of those present would consent to stable their horses,—hovels without ventilation, drainage, or the surroundings necessary for ordinary decency; hovels which bred a race of men who, from want of domestic comfort, spent their lives in the pot-house, and who had nothing to look forward to but to be buried in a pauper's grave! hovels which bred a race of women whose maidenly blushes were blotched through the scenes they were obliged to witness, in consequence of the want of proper sleeping accommodation."

less irrational for him to read those philosophers without any such help than to attempt to understand the equally profound tragedians, as is now generally the case, with no support but a barren knowledge of their language.

Much of this seems unavoidable. Though we can appreciate Homer and Plato without much difficulty, yet the drama was so eminently national, so akin to the peculiar genius of a people whose manners and education were as different as possible from ours, that we can hardly hope to enter fully into its spirit. But we can imagine nothing more likely to lead us onwards than the study of Greek sculpture. Here, too, are written the thoughts which we are to find in the drama written in a language which all true lovers of beauty can read. Unhappily, Greek painting has been long since lost. We have little means of ascertaining its merit; the ancient critics themselves probably spoke with little knowledge. But the renown in which the names of Apollodorus, Zeuxis, Parrhasius, and others were held, the many traditions of their skill, the perfection of form and colour on all pottery and coins still preserved, justify us in believing that in many respects the Greek painters at least rivalled the moderns. We know, however, from the descriptions left us, that their compositions, like the scenes in the tragedies, either represented one person generally in a dramatic situation, or a small group engaged in some simple action, also that, like sculpture, they never admitted anything ungraceful or vulgar.

But if anything could console us for this loss, it would be the preservation of those masterpieces of sculpture which have never been rivalled in modern times. It is true that, in all probability, these were not the greatest works of antiquity. The authors of Belvedere Apollo, the Venus of Milo, the family of Niobe, and other statues, which seem to us faultless, are entirely unknown. The Hercules Farnese of Glycon, the Venus de Medici by Cleomenes, the Borghese Gladiator of Agasias, are certainly not by artists who filled the world with their fame; they are not even mentioned in the comprehensive lists of Pausanias, Pliny, & others. Again, nearly all our statues are of marble, whilst Polycletus, Phidias, and, in general, Praxiteles, worked in bronze, ivory, or precious metals. It is, therefore, almost certain that the statues which have come down to us were not of the first rank, and that such statues as the Discobolus of Myron, and the Faun of Praxiteles, the originals of which we know were in bronze, can only be copies. The Elgin marbles, purchased by the English Government for 36,000*l.*, though belonging to the era of Phidias, were not the work of his hands. These creations, which rank higher than the Laocoon or the Apollo, were from his pupils. The Parthenon Minerva, and the Olympian Zeus, with all the other master-pieces that were composed of valuable materials, were destroyed by the vandalism of the Goths and the Franks.

Such was the genius of Greek sculpture. It reached its highest point during the administration of Pericles. It partakes largely of the literary spirit of that glorious time. As the epics of Homer resemble bas-relief, which may be supposed to go on *ad infinitum* at either end, and where the figures are not grouped together, so does Greek tragedy resemble Greek sculpture, where the figures stand apart from all foreign accessories. As in sculpture, real and substantial figures are set before us—not simple outlines decked out with colour—so in tragedy are the figures shown us as living and doing, not merely described. In general, Greek tragedy and sculpture illustrated the same subjects. Both were devoted to the ideal; neither tolerated anything unpleasing to the senses. The end of both was the same,—the expression of the deepest emotions without the loss of grace or beauty. In the agony of Laocoon, the despair of Niobe, the suffering of the Dying Gladiator, there is the same forbearance which is diffused over the drama; so that we admire, whilst we fear and pity. It is remarkable that Euripides the tragedian, and Timanthes the painter, both expressed this same feeling in representing Agamemnon at the sacrifice of Iphigenia hiding his face with his hands. The grief of the hero was too great to be seen by common eyes, nor was it natural that the father should look upon his daughter's death. So Tennyson—

> "My father held his hand upon his face."

Whoever really feels in his own heart this noble characteristic of Greek sculpture, will be capable of appreciating that stately sweetness, so difficult for a modern to understand which won Sophocles the name of the Attic Bee.

Sculpture is practically, as far as new inventions go, dead. Once in the history of the world has it risen and attained, in our eyes, perfection; but the combination of events which produced this effect was such as we can never hope for again. It grew in one of the most beautiful countries of the world, amongst a people most sensitive to all that was beautiful both in thought and nature; it attained its highest development in a city adorned by fame, power, and genius; it was encouraged by all political and religious powers; the finest athletes and the most beautiful women took a pride in being the artist's models. Wherever modern art has risen in Italy, in Spain, in Flanders, it has soon fallen again; but between Phidias and the author of Apollo there were many centuries, each adorned by a crowd of unequalled master-pieces. Such was the impulse—great and lasting—given to art by the Greek mind; for their religion resolved itself into the worship of the beautiful. But the conditions of our life are different. It is as impossible for us to execute a statue in the Greek style as a tragedy in the Greek style. Both would be anomalies at a time when Greek simplicity has passed away. Nothing shows this more plainly than the modern imitations. The positions are agreeable, the execution may be faultless, but they can never make a man think, as all Greek statues should do. The Attic tragedies are cast in such a mould that nothing but unfailing labour and faith in their excellence can master their difficulties. But these statues will excite the emotions of all whose understanding is not utterly degraded, and it was by this road that the greatest critics, confined to the Continent we are sorry to say, have fathomed the Greek genius in all its productions. This was the school of Winckelmann, Lessing, and Schlegel.

T. L.

WORKING GIRLS' HOMES AND WORKROOMS.

SIR,—I was glad to see the paragraph in the *Builder* (p. 919), referring to the plea for working-girls' homes, put forth by Mr. Shrimpton, and supported by Miss Emily Faithfull. As your journal has ever been foremost in promoting the social and physical well-being of our working classes, I venture to ask space for the following remarks, with the object of doing something towards helping on a movement for the amelioration of the condition of a large number of young girls and women who are unable to help themselves. Many of them are orphans,—some, indeed, may be said to be worse than orphans, for their parents are addicted to drink and vice to an extent which makes their "homes" veritable "hells upon earth." Indeed, I speak only of what I know when I say that but for the drink-curse thousands of young girls (many of them delicate in health) would not be driven to get their living in our city work-rooms (I say "work-rooms," although some of them would be better designated as "pest-holes"). To add to the family income (which in thousands of cases would be sufficient if one or both of the parents did not squander a great deal of it in drink), young girls are sent to the City to earn their living as best they may. The parents, although lacking proper self-respect, are puffed up with a false pride, which makes them scorn the idea of sending their girls "out to service," and the girls very naturally imbibe the prejudice. Hence the scarcity of domestic servants, and hence, too, the almost utter incapacity of girls so brought up to make good wives and mothers, this incapacity resulting in wretched homes, made still more wretched through the husband seeking a mistaken refuge in the public-house. Many of the "hands" employed in City workrooms are young married women, driven from their domestic duties to seek bread for themselves and little ones, some of their "husbands,"—manly fellows!—only choosing to work two or three days a week, and spending in drink and "pleasure" nearly all, and sometimes *all*, they earn. Some of these very men will talk authoritatively in defence of trade unions, and say, "the price of labour must be kept up!" and yet, by causing their wives and daughters to go into the labour market they are, in some branches of trade, doing the very thing to send men's wages down.

But, whatever may be the causes which send so large a number of young females into our City work-rooms, the fact remains that every morning from (say) seven o'clock until nine, streams of girls and women may be seen hurrying Citywards along our leading thoroughfares and over the bridges. They are mostly bound to arrive at their work-rooms by a certain fixed time, and if a few minutes late are either fined or shut out until after dinner; or, if admitted, are kept without work for a certain time if the work is "piece-work." No doubt these conditions are necessary for discipline in large establishments, but their fulfilment often entails much suffering. Most of the girls have to walk two or three miles before they arrive at their destination, and this in all weathers. No matter how keen the early morning air may be, no matter how thick may be the fog, how heavily it may rain, how thick may be the snow and slush of the streets, time has to be kept, if the workers do not wish to find their earnings sensibly diminished at the end of the week. In order to keep time, they very often rush off without stopping to take breakfast, and, consequently, without being fortified against the inclemency of the weather. Poorly-clad and thinly-shod, they arrive at the workroom sometimes literally "wet through to the skin," and in the majority of instances, have to sit in their wet clothes and boots. If prudence would lead some of them to keep a few clothes at the workroom for change, such foresight would be wasted in most of the smaller establishments, in which not only is there no convenience for drying the wet clothes and boots, but no private room to which the workers could retire to change clothes. Compelled thus to sit and steam in their wet clothes, what wonder is it that a large number of City work-girls die of consumption every year? The want of ventilation of such places is often execrable. To add to the contamination of the atmosphere caused by the wet clothes of the workers, there is often the offensive smell of the cloth or other materials used, to say nothing of the impurities given off by burning gas-jets. In many so-called workrooms gas has to be burnt all day to give light, for it seems to be accepted as a fact by some of those "manufacturers" who are thus living on the life's blood of their *employés*, that any hole or corner is good enough for a work-room. In some of these wretched places the only ventilation afforded is by means of accidentally broken skylights, which being left unrepaired add to the general discomfort by letting in the rain. In a room of this sort hard by Cripplegate Church a "mantle manufacturer" carried on business a few years ago,—and may do so now for all I know. Whenever the rain came down, the forewoman would sing out, "Mind your work, young ladies!" whereupon one of the bolder spirits amongst them was wont to say, "Mind *yourselves*, girls, never mind the work!" Into this same workroom a very offensive water-closet opened direct, and several of the girls were seated all day within a few inches of its door. Under such conditions it is not difficult to account for the pallid countenances and bodily weakness of many of the class of whom I am writing.

Then, again, with regard to meals, in a large number of City workrooms not the slightest convenience exists for even the simple cookery which would meet the requirements and add to the comfort of the work-girls. Two or three boiled eggs, or a couple of rashers of bacon, fried, with potatoes or bread, would serve as a cheap and wholesome "dinner" for a poor work-girl, if she could but have the means afforded her on the premises of boiling or frying. In the absence of such accommodation she often puts up with a "makeshift" dinner of dry bread-and-butter brought from home, being unable to pay for a dinner from the cook's shop,—although it may be quite true that many girls will, by reason of deficient domestic training, stint themselves of food rather than deprive themselves of some tawdry article of dress. In many establishments, the utmost convenience afforded is a supply of hot water for making tea; but even this commodity is sometimes so limited and so grudgingly given that it has to be augmented surreptitiously,—the cook or housekeeper, perhaps, levying "black mail" to the extent of a few pence per week from each girl in consideration of the increased quantity of hot water allowed to be taken.

No doubt there are many honourable exceptions to this state of things, but in most cases little or no heed is paid by employers to the health and comfort of their *employés*. A bright exception is to be found at Messrs. Waterlow's new buildings in Finsbury Market, visited by the

Architectural Association a few months ago. There each of the floors occupied by the female bookfolders and sewers is provided with its kitchen, with capacious oven and boiler; plates, pie-dishes, knives and forks, spoons, teapots, cups and saucers, and kettles and saucepans of all sizes are provided; and there is a kitchen-maid to keep things in order. Why is it that such considerateness towards *employés* is not more general? In some cases, no doubt, because a mercenary view is taken of the matter; in many others, because it is not thought of.

"Evil is wrought for want of head
As well as want of heart."

There is, I believe, a "Ladies' Sanitary Association," which might well take up this question of the sanitary condition of workrooms in which girls and young women are employed under some of the conditions I have pointed out. In the meantime I hope that the movement for providing homes for working girls will eventuate in much good work, morally and physically. If they have to work in discomfort, let them, at all events, take their ease amidst peaceful and healthy surroundings. DELTA.

GLENGARRIFF, BANTRY BAY, SANATORIUM.

LATE in the last year some observations were published in the *Builder** respecting this newly-discovered resort for invalids during the winter months, and the great advantages of its dry and warm climate, especially in laryngial or pectoral disorders, were set forth; the average temperature being 7° over that of London, and 6° over that of Torquay; but as regards the foreign and more popular places of resort, the temperature at Glengarriff during the months of winter and spring is registered at 3½° above that of Montpellier; and is not only higher, but much more equable than that of Nice, which is fitfully visited by the dreadful ravages of the mistrale, the bise, and the sirocco,—the register of rainfall being recorded as over 5 in. less than even at Nice, or the other refuges for invalids on the south coast. The peculiar warmth and dryness of the air upon the south-west coast of Ireland is owing to the influence of the Gulf Stream, which flows continuously from the Gulf of Mexico, nearly parallel to the American coast, northward, and washes the whole south-western promontory of the Irish coast, from Mizen Head to Dingle Bay, Bantry Bay opening out to the warm tide, and receiving the full tribute of ozone, which it imparts to the grand and picturesque mountain-bound districts, extending over twenty-five miles from the ocean entrance to Glengarriff and its surroundings.

From Killarney, by road, the distance is but forty-two miles,—a picturesque route, which may be done by cars; but the whole journey from London, *viâ* Cork, may be made in eighteen hours, the railway having been recently completed to Drimoleague, which is only fifteen miles from Glengarriff. That interval, like all the surrounding country, abounds in varying scenery of the most romantic description, presenting mountains, scarped precipices, lakes, the bay and its numerous islets; besides a richness of shrub, evergreens, and flowers, unequalled in any other locality.

The luxuriance of vegetation in shrub and flower attest the mildness of climate, for here throughout the winter flourish the arbutus and rhododendron, the myrtle, laurestina, and other shrubs, besides flowers which decorate the wilds throughout the year.

In addition to all these advantages there is a spacious and well-appointed hotel on the border of the bay at Glengarriff, situated in the most charming position, where every comfort and luxury can be had, at the most moderate charge; and within the last two years that establishment has brought the locality (hitherto a *terra incognita*) into notice, more particularly within the last season, when it was used by several noble and aristocratic visitors; so that the possession of a sanatorium in such a climate, within the limits of the British Isles, will no longer be allowed to slumber unknown and in obscurity. T. H. H.

Other Towns, please Copy.—The Glasgow Improvement Trust have given instructions that a book of photographs shall be prepared, showing "old and historical parts of the city" demolished by the city improvements, with explanatory letterpress by Mr. Carrick, the master of works.

* See vol. xxxiv., pp. 1103, 1226.

CIVIL AND MECHANICAL ENGINEERS' SOCIETY.

A VISIT was paid by this Society on Friday, the 7th inst., to the new Courts of Law, now building at Temple-bar. The members were received by the clerk of the works, and after a brief inspection of the great quadrangle, the members went to the architect's temporary office, and there the general scheme of the buildings was explained. The members were then taken to the eastern block, facing Bell-alley, which is now rapidly approaching completion, and begins to give a very fair idea of what the completed buildings will be like. From this point the visitors were taken to the main block of buildings, which will contain the central hall, surrounded by the courts. This part of the works is at the present time but little above the main floor level of the central hall. The clerk of works then led the way to the western part of the site, where is situated the machinery and sheds, in which the stone is sawn, moulded, and worked, in readiness for fixing, and from which tramways lead to all parts of the works.

BIRMINGHAM SECULAR CLUB AND INSTITUTE.

SOME time ago the premises, 18, The Crescent, Birmingham, were purchased for a club-house or home for the Secular Party in Birmingham, and alterations have been effected so as to render the house convenient for its purpose. In addition, a lecture-theatre or hall has been erected in the rear of the club-house, to accommodate about 300 persons. The proportions of Baskerville Hall, as it is termed, were governed by the site: the total length of the same, inclusive of the stage or platform, and ante-room, is 83 ft., by a width of 20 ft.; the platform, with proscenium, is 20 ft. deep, arranged at a suitable height from the floor, and having a sloping stage. The hall and its adjuncts have been so planned that they may be convenient for use as a miniature theatre, and under the stage are arranged dressing-rooms and lavatories, with separate approaches. There is also a large lumber or storage room. The interior of the hall has a range of side pilasters, with composite carved caps and bases, and between the pilasters the wall-space is divided by moulded panels suitable for decoration. The pilasters carry semicircular ribbed and moulded members of the principals, the hall being ceiled at the collar height, which is 21 ft. from the floor level; the compartments of the ceiling have intersecting mouldings, and there are skylights on either side, whilst in the flat compartments are circular ventilators, and from the principals depend coronæ for light; at the entrance end of the hall is an ante-room, having movable partitions for throwing the space into the hall, when required. Over the ante-room in that end of the hall is a triplet window, and at the other end of the hall is the proscenium, semicircular-headed, panelled in devices, and supported by composite columns; there are also stage-doors on either side.

It is mainly through the munificence of Mr. Daniel Baker, of Birmingham, who is a warm supporter of secularism in that town, that Baskerville Hall and the Club House attached to it are in existence, and the Free Thought party cannot be too grateful to him for his unselfish exertions.

The total outlay for the works spoken of, including the original purchase, may be called 1,350*l*. The builder, Mr. John Loughton, has carried out the works under the superintendence of the architects, Messrs. Foulkes & Ryland, of Birmingham.

CADGING.

SIR,—I enclose you a copy of a choice "bit," cut from the *Surrey and Hants News*, a weekly paper, circulated not a hundred miles from town:—

"TO PERSONS ABOUT TO BUILD.—If you want a good plan of a Cottage or Villa, &c., combined with economy, apply to —, —, Aldershott. *N.B.—References given if required.*"

Name and address might I think be left blank, as the enterprising architect in question would not be obliged for a gratuitous advertisement. It is frequently asked, "What is the profession coming to?" Well, if this style of seeking business in the provinces is to be taken as a criterion, there, at any rate, it is fast approaching a mere trade. J. W. S.

ON THE MECHANICAL GENERATION OF THE EGG-SHAPE FROM THREE FOCI.

THE egg-shape has always been recognised as one of, if not, the most agreeable of forms. This is due to the greater contrariety which it contains in comparison with either the circle or the ellipse. The ellipse contains a less amount of equality than the circle, and the egg-shape a less amount than the ellipse. The differentiation of the two ends of the egg-form produces a moderate contrariety in its constitution which is most agreeable to human taste. The delineation of the egg-shape, however, has hitherto only been imperfectly accomplished by a composition of segments of circles, produced by compasses, and not as the ellipse, that I am aware of,—by continuous motion. The object of this communication is to suggest a means of doing this which will produce two series of most beautiful oviform curves, which may possibly be of some use to the ornamental arts. I have not myself the slightest doubt that the forms of the trunks of the Grecian vases were determined by similar means to those I am about to suggest, and I also feel convinced that this matter may ultimately lead to the unravelment of other mysteries connected with Grecian art, and more especially of those connected with Grecian architecture.

We all understand the rude method of describing an ellipse with a continuous cord, working about two pins placed in the foci of the curve to be described. By such means it would be possible to, approximately, describe the whole series of ellipses between the limit of greatest symmetry, which is the circle, and that of greatest eccentricity, which is parallelism.

To describe an egg-shape,—an oval having a larger and a smaller end,—we must work with three foci, and employ three pins instead of two, as in describing an ellipse. Round these three pins should be placed the continuous string which is to guide either the pencil or the stylus. The series of egg-shapes produced from the *acute*-angled isosceles triangles would describe the series of *vase* forms, and the series of oviforms produced from *obtuse*-angled isosceles triangles would describe the *basin* or *bowl* forms. The central arrangement of the three foci is when these stand to each other as the extremities of the three sides of an *equilateral* triangle. If from this central condition we differentiate the relative position of three foci, or of the pins, preserving the sum of the sides of the isosceles triangles, which these foci or pins should represent, constant,—and the circumference of the continuous string, also constant,—we should be able to approximately describe the whole series of egg forms, differentiating them from that trivate or central form of greatest symmetry to that of greatest eccentricity which ultimately merges into parallelism.

The mathematical elements, and the rule for placing the foci in order to describe an egg-shape of any given diameter, must be subsequent. W. CAVE THOMAS.

CONCRETE WALLS.

ON Friday, the 14th inst., an inquest was held before Dr. Diplock, at the West London Hospital, on the body of Richard Terry, a labourer employed by Mr. Mark Levi, builder, on the Baron Court Estate, near West Kensington Station on the District Railway. A concrete wall runs along the Embankment between this station and Hammersmith, and large houses are being erected on the above estate, close to the embankment. To give more light to the areas and basements, about 60 ft. of the wall has been taken down; the earth was removed from the estate side, close up to the wall, for the foundations of the houses; pickaxes and chisels had little or no effect on the wall, and planks were used as battering-rams, but Mr. Levi declared it to be "as hard as iron." Two of the men were engaged in battering the wall, when the earth beneath and the wall both "slided" down into the hollow cleared for the foundations. Deceased was kept in position by a spade he held in his hand, which was fixed in the earth, and caused him to go down beneath the wall and be crushed to death. One of the men employed thought the trains had shaken the earth. The coroner said he had held several inquiries on deaths caused by the breaking of concrete walls; concrete was very uncertain in quality, for sometimes it was "as hard as iron," and sometimes as soft as sand. Mr. Levi said he had put struts where required, and the jury returned a verdict of accidental death.

COMPETITION, WESLEYAN CHAPEL, GREENWICH.

SIR,—The history of this competition is another warning to the architectural profession. The committee commenced by coquetting with two architects for about nine months, during which period several sketch designs were obtained from, and much encouragement given to, the architects in question. In November, '76, however, they were thrown over, and the competition launched, advantage being taken in the "instructions" of some of the suggestions previously obtained so cheaply. Six architects (Messrs. C. Bell, T. Dinwiddy, Banister Fletcher, A. Lauder, E. R. Robson, and Weir) were invited to submit designs. These were duly received, and retained, with occasional apologies, for five or six months, when the committee's deliberate choice fell upon Mr. Lauder, of Barnstaple. He has, I understand, since submitted a new design, journeyed to London to attend the committee, and incurred further expense and loss of time.

I think the close of this little history is utterly opposed to the commonest principles of justice and fair play. A few days since, I am informed, the committee finally rejected Mr. Lauder's designs, both original and amended, and suddenly adopted a volunteered design, introduced within the last week, by an architect not included in the original list of competitors, and quite a newcomer in the field.

I recommend a prompt meeting of the original competitors to consider whether the conditions of the competition have been violated, and urge them to endeavour for once to set an example of fraternal combination to the profession in these frequent cases of injustice.

AN ARCHITECT.

A NEW DOCK IN THE THAMES.

A NEW dock has been lately completed for the North London Railway Company at Poplar. It has a water area of 2¼ acres, and is formed parallel to the west side of the company's old Collier Dock, and connected with it by a short canal at the southern end, immediately contiguous to the West India Dock (Blackwall) Basin, and near the lock entrance from the Thames.

In the preliminary arrangement for the work a temporary coffer-dam, about 260 ft. long, was placed across the point where the entrance from the Collier Dock was to be formed. This coffer-dam was entirely of two rows of piles, 14 in. square, with caulked joints, and the space between the inner and outer rows was filled with clay puddle well rammed.

The wall is built upon a foundation of concrete, 13 ft. wide and 4 ft. thick, with stock bricks in blue lias mortar, and is 9 ft. 6 in. thick at the base and 5 ft. 3 in. at the top. The brickwork decreases at the back by steps, and batters in front 1½ in. to a foot from bottom to top. The wall is faced throughout with Staffordshire blue bricks, in cement mortar, to a depth below the coping of 14 ft. The coping, of Cornish granite, is 4 ft. wide and 2 ft. thick. The total height of the wall, from the bottom of the concrete to the top of the coping, is 31 ft., the latter being 6 ft. above Trinity high water. The average depth of water in the dock is 18 ft. The wharf frontage of the dock is 1,650 ft.

This dock extension, although of so limited an area, is shown to be of sufficient importance to induce three of the principal railway companies already to utilise its advantageous position.

The Company's engineer is Mr. T. Matthews, and the contractor is Mr. John Cardus, of Acton, whose contract also includes raising the timber quay 2 ft. 6 in. higher along the entire east side of the old dock, and the removal from the west side and re-erection on the east side thereof of a 30-ton crane. The contract further embraces the erection of a warehouse, clerks' offices, and stabling, on the west side of the dock, for the use of the Great Western Railway Company. The warehouse consists of ground-floor, 218 ft. by 130 ft. by 20 ft. headway, and two floors over, each 218 ft. by 84 ft., with basement under the platform. Large hollow cast-iron columns, placed upon Cornish granite bed-stones, 5 ft. 6 in. square and 2 ft. thick, the foundations for which are sunk 30 ft. below the ground surface, carry the upper floors upon wrought-iron girders, some of which are above 30 tons weight each. The upper floors are continued in a similar manner of construction. The warehouse intended for the Great Northern Railway Company is commenced under another contract, and will consist of a ground-floor, 180 ft. by 125 ft., with basement under the platform, and one floor over, 180 ft. by 93 ft. A warehouse for the London and North-Western Railway Company, of far larger dimensions and cost, will shortly be commenced.

Stationary steam engines and boilers and hydraulic machinery and apparatus are provided for working the whole of the cranes and capstans round the dock and in the warehouses. Horses for shunting wagons will be dispensed with.

On account of the peculiar and somewhat limited space for passing the goods and mineral traffic after leaving the Poplar Station of the North London Railway, the course of the line thence to the dock is into sidings placed on the north side of the Blackwall Railway, and thence by a zig-zag course over that line by a bridge of two spans of 25 ft. each, with wrought-iron girders and timber floor, carrying sixteen lines of rails; the foundations of this bridge are 18 ft. below the rail level of the Blackwall line. Approach-roads paved with granite pitching are formed under the second opening to allow the cartage of goods, &c., between the West India Dock, the new dock, and the public highway at the Preston-road.

The entire length of the several lines of railway, with their sidings (after leaving the Poplar Station), to accommodate the London and North-Western, the Great Northern, the Great Western, and the North London Railway companies to the docks, is upwards of twelve miles; and the total acreage occupied thereby, including the old and new docks, is about 28 acres.

We understand the total cost of the works within this area will, when complete, exceed 250,000*l.*

DEFECTIVE HOUSE DRAINAGE AT HORNSEY.

FROM a North London paper which has been forwarded to us, we learn that two or three weeks ago Mr. H. Aubrey Husband, M.B., addressed a letter to the Hornsey Local Board, directing attention to the defective state of the house drainage of some new roads to the north of Stroud-green-road. In reply to his letter, Mr. Husband received a visit from Mr. Dean, the inspector of nuisances, who made a report to the Board stating that there was little or no fault to be found with the drainage. Mr. Husband writes to say, however, that at the same meeting of the Board the Chairman made the following statement, on the authority of Mr. Rogers, the surveyor,—"that there were no joints better than putty joints for soil-pipes." Mr. Husband says he was so "astounded" at this information that he at once wrote to Mr. Bailey Denton, who replied:—

"I do not think it possible to prescribe with safety the sort of jointing material to be used for soil-pipes descending *inside* a dwelling, for I think such an arrangement altogether wrong. All soil-pipes from w.c.'s should be conducted to the outside and down the outside wall in the most direct way to the sewer, and ventilated by a continuation of the pipes to a height above all windows. I quite agree with you that nothing can be more liable to defect than putty daubed with paint; and if the joints are *inside* the house, it is a long time before defects are discovered, particularly when the pipe is cased with boards."

Mr. Husband, in his letter to the Local Board, called attention to the following defects:—

"1. The soil-pipe is carried inside the houses, generally down the kitchen wall, the joints in the pipes being made with putty daubed with black paint.

2. The drain-pipes are carried under the houses, are not bedded in concrete, and with open joints, they being also used for subsoil drainage.

3. There are no disconnecting traps between the houses and the main-street drain, and no provisions for ventilation."

Mr. Husband also hints that road sweepings have entered largely into the composition of the "mortar" used in running up the houses in question, and that, in short, they are "built to sell," and likely to become fever-nests when occupied.

THE OBELISK.

SIR,—Permit me to correct some errors in my letter published in your issue of the 15th inst. The most important is my misapprehension of the word "crab." I find that Mr. Dixon used the term in its technical sense for metal claws, such support being necessary owing to the base of the obelisk being very much rounded.

The second is a clerical error, "low relief" instead of high relief,—the north and south sides of the pedestal of the Luxor obelisk being sculptured in high relief, and the east and west sides in *incuso* relief. JOSEPH BONOMI.

Walsall.—Mr. J. H. Shaw, of Wakefield, has been unanimously appointed assistant surveyor of Walsall.

THE TRADE UNIONS CONGRESS AT LEICESTER.

THE tenth annual congress of trade unions was opened in Leicester on Monday last, Mr. J. D. Pride, of Manchester, presiding.

Mr. Broadhurst submitted the report of the Parliamentary Committee, which, dealing with the subject of employers' liability for injuries to their servants, says:—

"The amendments recommended by the Select Committee are so vague and so totally inadequate to the evident justice of the case, that your committee can place no value upon them, and would recommend the Congress to authorise the re-introduction of the Bill of last year with some slight modification, if that should be deemed necessary. The report submitted by Mr. Lowe was much clearer in its conclusions, and its recommendations much more liberal. Your committee have always maintained that the only logical sequence to the present law is that an employer should be liable for injuries negligently caused to a fellow workman as he now is for injuries caused by one of his workmen to a person not in his employ. The justice of this proposition is evident to all who are acquainted with the conditions of every-day work, and your committee feel satisfaction in having their views on this question confirmed by so eminent a judge as Sir W. B. Brett, whose evidence was not only the most valuable, but the most clear and definite of any given to the committee. Mr. Meldon's report contained recommendations far in advance of either of the two already noticed, but it was presented too late for consideration."

On the Factory and Workshop Acts Consolidation Bill the committee remarked that on the whole they approved of it, and as it was likely when passed to settle this class of legislation for many years, it was of the utmost importance that every effort should be put forth to make it a complete measure.

On Tuesday, Mr. Daniel Merrick, of Leicester, the president of the Congress, delivered his opening address, in the course of which he said:—

"The right of working men to combine has been legally conceded; but I question whether the last Act upon intimidation gives them the liberty to which they have a right. Unionists are men and citizens, and as such must be placed in an equal position before the law to other classes. We want this; neither shall we rest satisfied till we have obtained it. We denounce in the strongest and most emphatic manner possible any attempt to destroy property or to injure persons and the rights of property. We revere the law and honour its administrators, and therefore we have a right to the privileges claimed by other bodies. Some employers are never easy without having their goods produced at a cheaper rate than their neighbours, and underselling the more honourable. The result is clear: either the trade unions must take the men out on strike, or else the honourable employers must reduce their workpeople to the same level. Workmen would be wanting in their duty to themselves, their families, and the nation, if they did not combine to prevent the evil as much as possible. The motto of trade unions is 'United to protect, but not to injure.' We have no desire to limit the number of employers or to restrict the amount of capital employed in labour. The more money there is used in labour the greater the number of labourers that will be required, and the better will be the prospect of good wages. We want to make the workers themselves capitalists, and our organisations have done a little towards that object. . . . . Some of the restrictions which employers put upon workmen are relics of the old system that sprang up in the dark ages; but workmen, as a rule, have used their power with prudence and discretion. However, a better mode of settling disputes than strikes and lock-outs can be found. Both modes of adjusting differences are barbarous, and belong in spirit to a past age."

The President went on to advocate Boards of conciliation and arbitration, composed of an equal number from each side, with an umpire versed in the technicalities of the trade, adding that such Boards had been found of much value in the hosiery trade in Leicester. These Boards would not do away with unions, which would still be needed, and under an increased necessity to enforce the decisions of the boards when given in favour of the workmen.

DRINKING FOUNTAIN, BRIDGNORTH.

SIR,—In last week's *Builder* (p. 940), the reference made to the "Whitmore Memorial Drinking Fountain," Bridgnorth, is incorrectly given. Competition designs were invited some few weeks ago, and two were selected by the committee to be submitted to the adjudication of Mr. R. Herbert Carpenter, architect, who ultimately reported to the committee in favour of my design, which will be executed in Aberdeen grey and red granite, Sicilian marble, and bronze. The figure of Sabrina will be the principal object in the last-named material. The four sides will be taken up by portrait medallion shields, with coats of arms in bronze, and inscriptions.

Kentish-town. JAMES MILO GRIFFITH, Sculptor.

THE RIVER DEE.

SIR,—I should esteem it a favour if any of your readers would inform me where any account is to be found of the works of reclamation and embankment of this river.

The embankment extends for some twelve or fifteen miles below the city of Chester, and must have been a very important undertaking.

I should be glad, also, to know if any such reclamation continues to be made on the Cheshire side of the estuary.

Bath, G.

MR. JOSEPH LIONEL WILLIAMS.

THE death of this able artist took place at his residence, 22, Victoria-road, Kensington, on Sunday, the 9th inst. He was the second surviving son of the late celebrated draughtsman and engraver on wood, Mr. Samuel Williams, and like him showed early signs of love for art. In his boyhood's days he was fond of grouping soldiers in the battle-field, taking his scenes from history, and even writing plays embracing subjects from Mediæval history. Costume, archæology, and topography were his favourite studies. In engraving, he with his brothers assisted his father at an early age, some of his work appearing in Hone's "Every Day Book" and "Table Book," the months being the most prominent. The "Olio and Parterre" contain much of his labour. Sharpe's "British Peerage" contains a vast amount of his work. He drew the ornamental borders to subjects drawn by his father for a "Thomson's Seasons," published by Mr. Bogue, of Fleet-street. In these his love of detail is fully seen. When engaged on the *Illustrated London News*, in some of the large interiors of the Houses of Parliament his detail was marvellous. Whilst engaged on that journal he had the full control of all the illustrations for the Great Exhibition of 1851. The death of the Duke of Wellington, at Walmer Castle, drawn by John Gilbert, now Sir John, was a perfect gem, the head of the Duke being entirely engraved by Williams. He also engraved some subjects copied from the old masters, in a valuable Bible published by Messrs. Longman.

In early years he exhibited a picture in oil, about three-quarter size, of "Othello relating his Adventures to Desdemona," in the British Institution, Pall-mall. Later in life he painted in water-colours, and exhibited in the Royal Academy, the Dudley Gallery, and at Manchester and Liverpool. Almost the last of his water-colour productions finished (a pedlar vending his wares) was sold from the Gallery.

He had latterly been getting together a number of sketches for a large picture he had in contemplation. Besides the various things mentioned, he has for many years been engaged in conducting, as well as drawing and engraving, the illustrations to several works for Messrs. Blackie, of Glasgow, such as the "Imperial Bible Dictionary," "Imperial Gazetteer," "Imperial Dictionary," Beveridge's "History of India," and School Dictionary, &c.

He was born at Colchester, in Essex, on the 6th of January, 1815. He was twice married, first to Jane, eldest daughter of the late Mr. Charles Herring; and secondly to Harriett, niece of the late General William Miller, who survives him. He leaves four sons.

WATER SUPPLY.

SIR,—My attention has been drawn to an article in the *Builder* of September 8th, headed "New Incidents in the Battle for Life," in which notice is taken of a letter of mine which appeared in the *Times* of August 28th. The writer professes to quote my *exact* words,—that is, "That the volume of these rivers is the gauge of the yield of their several watersheds is beyond dispute, except where, in the latter rivers, they have their outfalls into the bed of the stream." This is, unfortunately, a misquotation. My letter, as printed in the *Times*, reads, "That the volume of these rivers is the gauge of the yield of their several watersheds is beyond dispute, except where, in the latter rivers, they have their outfalls into the bed of the *Thames*." No wonder the writer did not catch the meaning of these latter words.

If my own words require further explanation, though, I think it is given when I say that the outfall of the Ravensbourn and Darent is into the bed of the Thames. It is that forms the exception, namely, that the volume of these rivers is not the gauge of their several watersheds. This is also known to be the case where the chalk formation is bounded by the sea; and it is the case more or less in the Thames valley, where the river between Moulsford and Maidenhead passes through the chalk formation. In this locality the greatest part of the drainage of the chalk, amounting to a large percentage of the whole volume reaching the tideway, is discharged into the bed of the Thames, and in such proportion increasing the purity of its waters.

My object is rather to correct a mistake than to enter further into this important subject.

J. C. CLUTTERBUCK.

CAVENDISH COLLEGE, CAMBRIDGE.

SIR,—My attention has been called to a letter of "Fair Play" in your impression of September 8th, in which "Cavendish College, Cambridge," is mentioned as being "for the benefit of young men unable to meet the expenses of a university education in existing colleges," and "a monument of his" (the Duke of Devonshire's) "liberality."

Both statements are incorrect. It is true the fees of Cavendish College are less than those of other colleges, but they are on a fair and liberal scale, and the object is not so much to *cheapen* university education as to take students at an age of about sixteen, and to enable them after three years of the college to leave Cambridge, and at the age of nineteen, properly qualified M.A.s, to commence life as architects, lawyers, or men of business.

With regard to the Duke of Devonshire and the College, permit me to say that the scheme is (like the county schools of the same founder,—the Rev. Canon Brereton) a joint-stock one, the Duke being a trustee, and one of those most anxious that there should be no flavour of either "charity" or "patronage" about it.

The County Schools already do what the Rev. Mr. Brereton said they ought to do,—that is, "pay a dividend on the capital, after doing their proper work in the best possible manner." Cavendish College, I have no doubt, will do the same.

My apology for troubling you with this explanation is that it is important to the success of the effort being made to improve middle-class education that it should not be misunderstood. The Duke of Devonshire has most generously given his name and much valuable time and help to the matter, but his efforts will only be half successful unless the capital employed is proved to be remunerative in a commercial sense.

JOHN GILES.

MASTERS AND MEN.

London.—We learn that within the last day or two the concession of the 10d. an hour demanded by the masons of the metropolis has been granted by two West-end building firms,—Messrs. Wheeler & Warren, and Messrs. Hook & Oldrey.

Manchester.—The weekly meeting of the Manchester Master Builders' Association was held on the 18th inst. at the Palatine Hotel. Several of the members stated that joiners had been applying at their shops for work which they were unable to give, being already full of hands. Reference was made to a letter recommending arbitration, and the fact was referred to that the employers offered to arbitrate the whole dispute last April, and named as referees several of the leading public men of the city; but the workmen refused, and decided to strike. The employers having, it is stated, in the meantime, "by much expenditure of time and money, succeeded in filling their shops with workmen, are now decidedly averse to entertaining any proposal for bringing the Union men back, being satisfied to keep the joiners they have, who are on the whole respectable, industrious workmen, anxious to do their duty, and civil and obliging to those placed over them." It was reported that twenty-four more joiners were on the way from America. It was resolved to give orders for stopping any further importation, the shops being practically full. It was further resolved to take permanent offices for the Association in the city, and to appoint a paid secretary. In the meantime Mr. Robert Neill, jun., undertook to act as hon. secretary.

CHURCH-BUILDING NEWS.

Blackmore.—The parish church of Blackmore, Essex, was lately re-opened by the Bishop of St. Alban's, after restoration. By the neglect of generations the church had been suffered to fall into a sad state of dilapidation and decay, insomuch that in the winter time service was only held within its walls under extreme inconvenience. In the east wall there were cracks and fissures which permitted the ivy to force itself through and grow inside the church. The work of restoration has been carried out by Mr. Barlow, who has acted both as builder and architect, and considering (says the *Chelmsford Chronicle*) that the total outlay will not exceed more than about 900*l.*, the restoration he has wrought is "quite wonderful."

Harby.—The new parish church at Harby has been consecrated by the Bishop Suffragan of Nottingham. It is cruciform on plan, and consists of chancel, nave, north chapel (used as a vestry), and organ-chamber, south porch, tower and spire,—which rises to a height of 120 ft. The tower contains five bells, and a clock-dial in the east face. Under the clock are a niche and canopy, containing a statue of Queen Eleanor, wife of Edward I., who died close to the site of the church, A.D. 1290, at the house of Richard de Weston, the foundation of whose house may still be traced. The statue,—a *fac simile* of that on her tomb in Westminster Abbey,—is by Earp, of London. Mr. G. Freeth built the spire at his own expense. He also gave the statue of Queen Eleanor, the clock, the organ, the stonework of the pulpit, and the heraldic tiles in the chancel floor. Mrs. Freeth gave the east window, which is by Heaton, Butler, & Bayne, of London, the altar-cloth, made at Bruges, and the brass eagle lectern. The whole cost was about 4,500*l.*

Weston-on-Trent.—The ancient parish church of Weston-on-Trent has been re-opened, after restoration. The whole of the work has been done by Messrs. Bullock & Barton, of Melbourne, from the plans of Messrs. Evans & Jolley, architects, Nottingham. The total cost has been about 1,200*l.*

Colerne.—The parish church of St. John the Baptist, Colerne, has been re-opened, after restoration. The church is of somewhat extensive dimensions. Its nave, chancel, and chantry chapel date from the thirteenth century, while the tower is a good example of the Somersetshire Perpendicular. The clearstory on the south side, which was in a weak condition and much out of the upright, has been rebuilt. The chancel and chantry arches above the organ-chamber have been completely renovated. On the north side of the chantry chapel a new vestry has been built. The roof of the north aisle having been in a very decayed condition, it has been entirely renewed with oak panelling, copied as closely as possible from the original. The screen which has hitherto filled the position formerly occupied by the rood-screen and loft now divides the lower lobby from the nave. On the exterior of the tower the pinnacles and all the upper part have been renewed, while a new flight of Pennant stairs has been erected inside. The architects were Messrs. Wilson, Willcox, & Wilson, of Bath, and the builder was Mr. Bladwell, of Bath.

Condover.—Condover parish church is about to be restored. Some years ago there was a lantern tower over the transept, but it fell and damaged a part of the building. This will be re-erected, and a new organ chamber and vestry will also be built. The plaster has been removed from the interior of the church, and the Norman masonry laid bare. As much of the old roof as possible has been retained. The architect is Mr. Fairfax Wade. The total cost of the work will be about 1,200*l.*

Stonehaven, N.B.—A new Episcopal chapel has been erected in Arbuthnott-street, Stonehaven, by the congregation of St. James's. It stands at the west end of Arbuthnott-street. It is a large building, built of purplish-grey freestone got from the Bervie quarries, some ten miles distant. The style of architecture is Norman, passing into Early English. When fully completed, the building will consist of a nave, two aisles, chancel, tower, and spire. As it stands, the nave and aisles form the building; the chancel, tower, and spire being intended to be built at a future period, when an additional sum shall have been raised to cover the necessary outlay. Accommodation will be provided for about 500 persons. The spire, which, according to the plan, will rise to a height of 85 ft., is intended to be built at the north-west corner, next to Arbuthnott-street. The cost has been about 3,600*l.* The contractors for the work are:—Mason work, Alex. James, Bervie; carpenter work, Robert Weir, Stonehaven; plasterer work, Alexander Cormack, Stonehaven; painter work, Alex. M'Kenzie, Stonehaven; plumber work, John Nicol; slater work, Robert Burness, Stonehaven.

DISSENTING CHURCH BUILDING NEWS.

Romford.—A new Congregational Church has lately been opened in South-street, the direct thoroughfare from the railway station to the market-place. It is from the designs of Mr. E. C. Allam, of that town, and has been built by Messrs. Staines & Son, of Great St. Helen's and Finsbury, at a cost of somewhat under 3,500*l.* The building is Gothic in character, and rectangular on plan, 61 ft. by 37 ft. internally, with a tower and slated spire at the south-east angle. It will accommodate 340 persons on the ground-floor, and 130 persons in the gallery. The ceiling is wagon-headed, and is boarded diagonally and varnished, only the timbers forming the panels being stained. The walls are faced externally with Kentish rag stone, with dressings of Bath stone. One of the lobbies at the back, and a class-room under the organ-gallery, will eventually be connected with proposed new school-rooms.

Towcester.—The memorial stones of a new Baptist Chapel at Towcester have been laid.

The new building, which is being erected in the lower part of the town, at a cost of about 1,350*l.*, will include vestry, with class and school rooms attached. The chapel is 45 ft. by 30 ft. Mr. Ingman is the architect, and Messrs. Taylor & Grist, Aylesbury, the contractors.

Frosterley.—The foundation-stones of a new Wesleyan Chapel at Frosterley have been laid. The building is being erected from designs by Mr. Blessley, architect, Middlesbrough, and is Gothic in style.

Oxford.—The memorial stones of a new Wesleyan Chapel in New Inn Hall-street, Oxford, were recently laid. The front elevation, including a tower and spire 130 ft. in height, will be visible from Cornmarket-street. Accommodation will be provided for 850 persons. The style is Decorated Gothic, polished granite being used for the columns of nave arcade. The contract has been undertaken by Messrs. Symm & Co., at 6,500*l.*, and the architect is Mr. Charles Bell, of London.

Watford.—The memorial stone of the new Beechen-grove Chapel, Watford, was recently laid. The building will provide sittings for 850 persons, and room for additional sittings, when needed, to accommodate 150 persons more, making, in the whole, provision for 1,000 persons. Mr. J. Wallis Chapman is the architect; and the total cost, including site, will be about 7,500*l.*

Spalding.—The Free Methodists of Spalding have resolved to take down their present chapel and erect a new one on a larger scale upon the same site, at a cost of about 2,000*l.*, using up the old materials as far as available. Mr. Bellamy, of Lincoln, is the architect employed.

Steyning.—The memorial stones of a new Wesleyan chapel in the High-street, Steyning, Sussex, have been laid. The chapel is being built by Mr. C. B. Oxley, of Steyning, in accordance with plans prepared by Messrs. Lund & Sons, architects, Worthing. It will be in the modern Gothic style, and will accommodate about 300 persons. The front is of white bricks, filled up with random flint work with a vein joint. At the back there is to be erected a schoolroom, which will provide room for some 200 children.

Innerleithen.—The foundation-stone of a new United Presbyterian Church at Innerleithen has been laid. The building is to be erected on the south-side of the Walkerburn-road, at the east end of the town, and will be a Gothic structure, built with whinstone faced with white freestone, and with massive buttresses. The church is seated to accommodate 600. The estimated cost is a little over 2,000*l.* The contractor for the mason work is Mr. Robert Mathieson, builder, Innerleithen; and for the joiner work, Mr. John Forsyth, Innerleithen.

Crich.—The foundation-stone of a new Baptist chapel at Crich, near Ambergate Junction, Derbyshire, has been laid. The building will provide accommodation for 300 people on the ground-floor, with space for galleries when needed, and will cost 1,500*l.* Mr. Isaac Betts, of Crich, is both architect and builder of the chapel.

Langton-on-Swale.—The memorial stones have been laid of a new Wesleyan Chapel in the village of Langton-on-Swale, near Northallerton. The chapel, which is to seat 103, is to be built of brick, with stone dressings, and with open seats in the interior. The architect is Mr. Alfred J. Martin, of Darlington; the builder is Mr. Lynes, of Darlington; and the cost of the building is estimated at a little over 300*l.*

Stitchel.—The foundation-stone of a new United Presbyterian Church at Stitchel has been laid. The building will cost about 2,000*l.*, and is to be erected in the Early Decorated style, according to designs prepared by Mr. Stevenson, architect, Berwick. It is to be built of whinstone, with freestone dressings. The church is to be seated for 320, a gallery at the north end being intended to hold sixty people. The stonework is being executed by Mr. Wood, Ayton.

Abergavenny.—The foundation-stone of a new Baptist Chapel for Abergavenny has been laid. The site of the chapel is an angle at the bottom of Frogmore-street, towards which the façade will front. Accommodation will be provided for nearly 800 persons, and the cost of erection will be about 3,650*l.* The style adopted is a sort of modified Gothic, and all the masonry will be executed in native stone. The architect is Mr. George Morgan, Carmarthen; and the contractors are Messrs. Foster, Brothers, Abergavenny. The clerk of the works is Mr. Hoskins.

Gillingham.—A new Wesleyan Chapel has been opened at Gillingham. The building is of Mendip grey-stone, with Bath-stone dressings, relieved with Ham-hill bands and arches over the upper windows. There is a spire 100 ft. high on the side towards the street. The aisles and lobbies are paved with tesselated stone, of mosaic pattern, and there are three entrances to the building. There is a schoolroom, 52 ft. by 22 ft., at the rear of the building. The architect was Mr. Ridout, of Gillingham, and the style is Early Gothic.

Dronfield.—A new Wesleyan Chapel was lately opened at Dronfield. The building, which is centrally situated on the Sheffield and Chesterfield turnpike-road, is constructed of white stone. The contract for masonry has been carried out by Mr. W. Tomlinson, and that for the woodwork by Mr. Bramhall, of Dronfield. The entire cost of the building is estimated at 1,000*l.*

Highfield.—The memorial-stones of a new Wesleyan Chapel at Highfield, Sheffield, have been laid. The building will be Early Gothic in style, and will be constructed of Dunford Bridge wall stone, with Hollington stone dressings. In the basement there will be a schoolroom, with four class-rooms, and other conveniences. Accommodation will be provided in the chapel for 907 persons. At the corner of the road formed by the intersection of Highfield-place with the London-road there will be a tower and spire 140 ft. high. The buildings will cost about 8,000*l.* Mr. J. D. Webster is the architect.

Newcastle-on-Tyne.—The new chapel at Bulman village, erected by the United Methodist Free Church, has been completed and opened. It is built of stone, of Early English Gothic design, and affords sittings for 730. In plan the building consists of a nave with side aisles, and apsidal organ gallery behind the pulpit at the west end. There are galleries all round the interior, the fronts of which are panelled, each panel containing a conventional floral design cut in the woodwork. All the internal fittings are of pitch-pine. The principal front faces the north turnpike-road, and comprises the lofty east gable of the chapel, flanked by transeptal projections containing the gallery staircases, and by an octagonal tower and turret spire 70 ft. high. The east gable contains the principal entrance doorway, and above it a triplet of lancet-lights surmounted by a circular six-foil window, the details of the whole being enriched by moulded and carved work. The flank walls of the chapel have two tiers of lights with lancet and trefoil heads respectively, except in the transept gables, which have large two-light windows, with simple tracery in the heads. At the west end of the building are provided vestries, class-rooms, &c. The extreme internal dimensions are 82 ft. by 43 ft. by 38 ft. high. The cost of the building alone approaches 4,500*l.*, exclusive of the price of the large site, which affords ample space for the future erection of school buildings, minister's residence, &c., and has yet to be enclosed by suitable boundary walls and palisading. The architects of the chapel are Messrs. Septimus Oswald & Son, of Newcastle-on-Tyne. The contractors for the structural works were Messrs. Henry Hudspeth & Son, various firms working under them.

ROMAN CATHOLIC CHURCH-BUILDING NEWS.

Ancoats.—The foundation-stone of a new Roman Catholic Church in Fawcett-street, Ancoats, has lately been laid. The church, which is to be dedicated to St. Alban, is to be provided with vestry, confessionals, &c., and will be 78 ft. long by 30 ft. wide, having at the west end a gallery affording accommodation for one hundred persons, and giving room for an organ and choir. Externally it will be of brick, relieved by blue stringcourses and plinths, the doors and windows having pointed moulded arches. Inside, the edifice will be plastered, the woodwork and furniture being of pitch pine. The principals of the roof will be of similar material. The west gable will be surmounted by a bell turret 30 ft. high. Mr. John L. Ward, of Manchester, is the contractor for the whole of the work.

Washington (Durham).—The foundation-stone of a new Roman Catholic Church at Washington, Durham, has been laid by the Right Rev. Dr. Chadwick, the Roman Catholic bishop of Hexham. The new building, which is placed east and west, is to consist of a nave, two side aisles, a chancel, and north and south transepts. At the end of the north aisle will be a chapel, and at the end of the south aisle will be the sacristy. At the end of the chancel there will be an apse with an arcade. The nave will be wide, so as to contain the whole of the congregation, the aisles being used simply for passages. At the west end of each aisle there will be a porch with doors for exit and entrance. There will be sittings for five hundred people, besides children, in the north transept, the choir and organ being placed in the south transept. On the south transept will be a bell gable. Attached to the church will be a presbytery house; and the whole will occupy an area of upwards of two acres. The buildings will be of stone, in the Decorated Gothic style, the dressings being of red sandstone, from Dean's quarry, Tyne Dock. The architects are Messrs. Dunn & Hanson, Newcastle, and the contractor is Mr. G. E. Foster, of Washington; the cost, exclusive of the site, being about 5,000*l.*

Market Harborough.—The new Roman Catholic church and schools at Market Harborough were opened on the 15th ult. The buildings, of which we gave an illustration in our number for April 7th last (p. 347), have been erected from the designs of Mr. C. G. Wray, architect, London, Mr. Haines acting as clerk of the works. The builders were Messrs. Halliday & Cave, of Stamford.

Stonehaven, N.B.—A new Roman Catholic chapel has been erected in Arbuthnott-street, Stonehaven. It is in the Decorated style of Gothic architecture, and is designed in the form of a cross, with nave, transept, and apsidal chancel, on one side of which is the sacristy, and on the other, under the base of the tower, a small room. The nave is 33 ft. by 20 ft., and the chancel 17 ft. by 14 ft.; while the height of the building, from the base to the apex of the roof, is 28 ft. The interior is seated for eighty persons, but additional sittings can be added. The building has been designed by Mr. J. R. Mackenzie, architect, Aberdeen.

Liverpool.—The new Roman Catholic church of St. Thomas of Canterbury, Great George's-road, Waterloo, has been opened for public worship. Owing to the peculiarities of the site, the church stands north and south, thus departing from the usual custom of turning the altar end to the east. A bold porch leads into a small narthex, doors at each side of which give direct ingress to the nave. On entering the nave the attention is attracted by the granite columns which separate the nave from the aisles. The grey and the purple were procured from Shap, Westmoreland, and the red columns from Mull, Scotland. The chancel arch, of bold proportions, separates the chancel from the nave. The chancel is lofty, and is terminated by a five-sided apsidal end. The organ transept and side chapel are on either side of the chancel. The chief feature of the church is the unusually large and elaborate high altar and reredos. The reredos follows the shape of the apse, the sides being composed in rich arcading, carried on various coloured marble columns. Figures in niches of the four Evangelists, St. Thomas, and St. George, occupy the junctions of the six angles which form the apse. Each figure is nearly life-size, and stands on a base supported by a group of Devonshire marble columns, carved with the emblem of the saint placed above. Each niche is covered by a richly-decorated canopy. The high altar stands completely separated from the reredos by a passage all around it. It is built of various kinds of polished alabaster, with columns of Irish and Devonshire marble. The tabernacle is carved out of a block of white alabaster, ornamented with red jasper columns. The canopy, forming the centre and crown of the whole design, is carried over the tabernacle by Irish marble columns. The whole of the altar and reredos has been executed from full-size cartoons supplied by the architect, by Mr. Boulton, of Cheltenham, who also did the rest of the carving on the church. The position of the font is near one of the entrance-doors. Granite, polished, forms the bowl, which rests on a cluster of marble columns. The oak and metal top was supplied by Messrs. Hardman, who also made and fixed the gasfittings. Specially made carpets were procured from Messrs. Crace & Co., London. Heating pipes for the hot-water system have been laid by Messrs. Harlow, Macclesfield. The benches have been executed by Mr. Webster, of Miller's Bridge. In the end compartment of the apse, a stained-window has been painted and fixed by Messrs. Hardman. It is erected as a memorial window by Mrs. Smith. Mr. John Francis acted as clerk of works to the buildings, which have been carried out by Mr. James Leslie, builder, of Miller's-bridge, Liverpool, from the designs of Mr. Edmund Kirkby, architect, Liverpool. The style is Early English.

SCHOOL BUILDING NEWS.

Gorsley.—A new apse or small chancel which has been added to the school church at Gorsley has just been opened. The building, which has been designed by Mr. Harris, jun., is in the Early English style. The contractors were Messrs. James, Brothers, of Newent.

Stourport. — The managers of the Stourport National schools have decided upon enlarging the buildings, and Mr. Meredith, architect, has prepared a plan showing what alterations are necessary to give accommodation for 200 more children. The estimated cost is 1,700*l.*

Poslingford. — The foundation-stone of new National Schools at Poslingford has been laid. The buildings have been designed by Mr. A. A. G. Colpoys, and are intended to accommodate seventy children, a residence for the mistress being provided. The contract has been taken by Messrs. Mason & Son, of Haverhill, and the total cost is estimated at about 800*l.*

Bugsworth (Derbyshire).—Memorial stones were laid here on the 18th ult., of a Church of England school, in course of erection by Mr. D. Drinkwater, from designs prepared by Mr. J. Lowe, architect, Manchester. The building is of plain construction, and will accommodate 150 children, in accordance with the requirements of the Education Department, at a cost of about 600*l.*

Sutton Valence.—A new range of buildings at Sutton Valence Grammar School was lately opened. The work has been carried out by Mr. Naylar, of Rochester, under the direction of Mr. F. W. Porter, architect, of London. The basement forms a large hall, 54 ft. by 30 ft., which can be divided into three spacious class-rooms by a double sliding partition. The corresponding large hall above is to be used as the principal schoolroom. The dining-hall will be fitted up with partitioned desks for separate study, and the present school-room will be used as a dining-hall. There is also a corridor of studies, each 7 ft. by 5 ft., built for the senior boys.

STAINED GLASS.

Press.—A stained-glass window, the work of Mr. John Davies, Wyle-cop, Shrewsbury, has been placed in the Primitive Methodist Chapel, Press, to the memory of the late Mr. W. Powell. The subject is "The Good Shepherd."

Drayton. — A stained-glass window has just been placed in Drayton Church, Norfolk, to the memory of the late Mr. James Winter. The subject is "The Good Samaritan." The window is the work of Messrs. Clayton & Bell.

Dunfermline.—A new stained-glass window has been placed on the south side of the Abbey Church, Dunfermline, by Mr. David Douglas, W.S., Edinburgh, in memory of Mr. James Douglas, his father. The work was executed by Messrs. Ballantyne & Son.

Yarmouth.—A design for stained glass for the east window of St. Nicholas Church, Great Yarmouth, has been prepared. The new window will represent five principal subjects connected with the life of our Lord, viz., the Nativity, the Baptism, the Crucifixion, the Resurrection, and the Ascension. These will occupy the upper and more prominent part of the window. Beneath these will be five other smaller paintings of five incidents in the life of our Lord. The new window is to be erected in memory of Mr. and Mrs. Palgrave.

Folkestone.—A stained-glass window has just been unveiled in the parish church, Folkestone, in commemoration of some children's services held there last year. The work has been executed by Mr. C. E. Kempe.

Pershore.—The Abbey Church at Pershore has just received an addition in the shape of a stained-glass window, which has been placed in the north aisle as a memorial of the late Colonel Henry Sales Scobell, of the Abbey, by his children. The window has been executed by Messrs. Clayton & Bell.

Henbury (Bristol). — There has just been erected in this church a four-light window of an unusual treatment. It is entirely composed of two shades of green with black outlines of the subjects, the Holy Women at the Tomb and the Appearance of the Saviour to Mary Magdalen. It is the work of Messrs. Mayer & Co., of Munich.

Handsworth.—The Handsworth Local Board have appointed Mr. Edward Kenworthy, of Barnsley, as their surveyor, at a salary of 300*l.* a year.

VARIORUM.

THE latter numbers of the periodical *L'Art*, 139, 140, 141, and 142, are devoted mainly to treatises by able hands on Rubens and his works, with a large number of interesting illustrations, mostly fac-similes of sketches by him. This review, which has taken a high place in periodical literature, has now an office in London (135, New Bond-street) and an English editor for matters which relate to this country.——The recently-issued part of "Transactions of the Statistical Society," 1876-7, includes an interesting paper by Mr. E. T. Bellhouse on "Baths and Wash-houses for the People in Manchester."

Miscellanea.

Mortar: and Piece Work.—At the first meeting of the session of the Liverpool Engineering Society, held on Wednesday, September 12, Mr. Wilkinson, hon. secretary, called attention to some interesting samples of mortar. A piece of mortar from Sandown Castle, Kent, upwards of 300 years old, sustained a tensile strain when tested by him of 263 lb. per square inch; and a sample of mortar lately brought from Nicopolis by Mr. Alfred Holt, member, appeared to be as hard as stone, and much honeycombed. The president thought that its rough and honeycombed appearance clearly bore out his theory that the goodness of ancient mortar is more due to the high quality of the materials then employed than to any special qualifications which the ancients possessed for mixing mortar. A paper on "Piece Work *v.* Day Work," was then read by Mr. R. F. Pitt, member. In considering his subject, he divided it into six heads,—1. General View; 2. Co-operation; 3. Mechanical Engineering; 4. Civil Engineering; 5. Miscellaneous; 6. Conclusion. He advocated piece-work under most circumstances in the rougher classes of work. On the question of co-operation, or labour participation in the profits, he thought there had not been sufficient experience to justify him in forming an opinion. He said piece-work decidedly has the advantage over all other systems, inasmuch as it enables men to make higher wages, and principals to turn over their capital more quickly than they otherwise could do. He quoted instances of masons making double the current rates by piece-work, and at the same time stated that men working beside them under similar conditions could barely earn their living. At day wages, or according to "Union" rules, these men would be classed at the same rate, which, of course, tends to lower the skill of the artisan.

Underground Water.—The committee of the British Association for investigating the circulation of underground water in the new red and permian rocks has been re-appointed, and the inquiry extended to the oolites. At the Plymouth Congress, the hon. secretary, Mr. De Rance, F.G.S., read an elaborate report of the work done by the committee during the last year. Mr. T. Mellard Reade, C.E., F.G.S., followed with an individual report upon the wells of South-West Lancashire, in which he analysed the information he had collected during the last three years, and sought to demonstrate by calculation of the water yielded by certain wells and bore-holes that the yield of a well is dependent upon striking certain fissures or channels which ramify through the sandstone, forming ducts, conveying the underground water to the pumping stations. These ducts, which may be vertical fissures, or may be channels along the planes of bedding, like arteries, conveyed the water from large areas of sandstone that have absorbed the rainfall from surface percolation. He also showed that the wells are nearly all affected by local percolation, and insisted on the necessity in most cases of excluding water from the strata immediately surrounding the well, as it is liable to all sorts of organic contamination, by water-tight cylinders or tubbing.

Removing Tree Stumps.—In the backwoods of America, as stated in the *Indian Agriculturist*, the following method of removing stumps of trees has proved very efficacious. In the autumn a hole, 1 in. or 2 in. in diameter, and 11 in. deep, is bored into the stump, and filled with 1½ oz. of saltpetre, dissolved in water, and the aperture closed. In the following spring half a gill of kerosene oil is put into the same hole and lighted. The stump is said to smoulder away without blazing, and the fire extends to part of the roots, leaving nothing but ashes.

Granite-dressing Machinery.—The *Aberdeen Free Press* gives an account of a new machine just introduced into the granite trade of the city, viz., Brunton & Trier's patent stone-dressing machine, the makers of which are Messrs. Ransome & Co., of London. Some time ago there was introduced a machine for the dressing of circular stone columns in the lathes in use at the granite-polishing yards, whereby a large saving of skilled manual labour was effected; but it is stated that up to this time the dressing of square or flat-surfaced stones has been entirely done by hand. The new machine promises to revolutionise this system to a very great extent, as by means of it the dressing operation can be performed with far greater speed and efficiency than by manual labour. The stone intended to be dressed is placed on a travelling iron table, upon which it is tightly wedged. Above this table, and depending from the centre framework, is a chuck, to which the cutting-machinery is attached. The cutters, which are circular steel discs, are driven by means of bevel gearing, worked by a spindle passing through the chuck shaft. The cutters and chuck revolve simultaneously at a rapid rate, the former making 1,200 revolutions and the latter 500 revolutions per minute. The table carrying the stone is made to travel at the rate of from 2 *ft.* per minute for granite, to 6 ft. per minute for sandstone.

Explosion in a Liverpool Sewer.—On the 12th inst., an alarming explosion took place in Fescher-street, Liverpool, in a sewer, followed by the upheaval of the pavement, and the issuing forth of flame, to the consternation of the inhabitants. Such was the force of the explosion, that a large stone, weighing over 4 cwt., was hurled upwards, though, fortunately, no personal injury was sustained. The flames raged in the sewer for some time, and it was ultimately discovered that the explosion was caused by an accumulation of gas from a fractured main gas-pipe, the ignition being caused by a passer-by throwing a lighted match down the sewer grid.

Stanford's Library Map of London and its Suburbs.—A new edition of this map comes to us on twenty-four sheets, in a portfolio, and is a very useful possession. It embraces an area of nearly 120 square miles, and has been re-surveyed. The alterations which have been made in London since the last edition was issued in 1865 are striking. The map extends on the north to Finchley, Crouch-end, and Leyton; on the south to Mitcham, Norwood, and Beckenham; on the east to Stratford, Blackwall, and Blackheath; and on the west to Willesden, Shepherd's-bush, and Putney. We have looked over it carefully, and can give it a first-rate character.

"Gas from Wood."—Referring to the paragraph with this heading in last week's *Builder*, a correspondent writes:—"I have given gas made from wood a fair trial, and can say that excellent gas for heating purposes can be made in like manner that coal gas is produced, at little cost, but the flame burns blue, producing a bad atmosphere. The question is how to purify such gas for general use. I may observe that the wood before use was worth not more than 4*d.*, but the charcoal produced from it was worth fully three times the amount. The gas is produced very rapidly."

The New Town Hall, Manchester, was formally opened on the 13th inst. The building, of which,—as many of our readers will know,—Mr. Waterhouse is the architect, has formed the subject of illustrations and numerous critical and descriptive articles in previous volumes of the *Builder*. The architect, some months ago, read a paper descriptive of the building before the Royal Institute of British Architects, and the substance of the paper appeared in our columns at the time.

Iron and Asphalt.—The Brunswick Rock Asphalt Paving Company are covering the large 24-in. and 30-in. main gaspipes for the Phœnix Gas Company with 1-in. thick rock asphalt, and the pipes are being laid under the bed of the Quaggy river at Lee. We believe this is the first time this method has been tried. The company claim that it has the following advantages:—Prevents all leakage, is a protection against explosion, and prevents the pipe rusting.

Safe Safes.—Messrs. Chubb are rather proud that some burglars were foiled last month at Buenos Ayres in attempting to cut a hole in one of their old safes. So much evidence has been given that these makers *can* produce good safes, that it is scarcely necessary to print the anecdote.

A Big Block of Granite.—There was recently quarried, without the use of powder, at the Barre, Vt., U.S., granite quarries, for the use of the Oliver granite works at Rutland, a block weighing about 618 tons,—being 40 ft. long, 17 ft. high, and 10 ft. thick. This stone is believed to be the largest block of granite ever quarried in the State.

TENDERS.

For alterations to the Crown Tavern, Upper Holloway. Mr. John Heath, architect. Quantities supplied:—

Anley	£695 0 0
Vears & Co.	663 0 0
Terrey	620 0 0
Channing (accepted)	527 0 0

For proposed additions to the Old Ford Mission Hall, Tredegar-road, Bow, for Mr. Arthur Farnan. Messrs. Hills & Fletcher, architects. Quantities supplied:—

Sheffield & Prebble	£593 0 0
Selby	585 0 0
Coleman	555 0 0
Robey	529 0 0
Johnson (accepted)	493 0 0

For shops and warehouse in Basinghall-street and Mason's-avenue. Messrs. Ford & Hesketh, architects:—

Ashby & Horner	£6,947 0 0
Killby	6,770 0 0
Boyce	6,768 0 0
Ashby, Brothers	6,633 0 0
Lawrance	6,600 0 0
Brass	6,526 0 0
Scrivener & White	6,516 0 0
Browne & Robinson	6,5 5 0 0
Newman & Mann	6,346 0 0
Crabb	6,317 0 0
Nightingale	6,086 0 0
Mark (accepted)	6,000 0 0

For a pair of semi-detached houses, Blackheath, for Mr. H. E. Joyce:—

Staines & Son (accepted)	£2,160 0 0

For warehouse, No. 40, Gresham-street, City. Messrs. Ford, Hesketh, & Nove, architects:—

Luscelles	£3,633 0 0
Scrivener & White	3,515 0 0
Boyce	3,483 0 0
M'Lachlan	3,452 0 0
Lawrence	3,452 0 0
Perry & Co.	3,437 0 0
Ashby, Brothers	3,400 0 0
Brass	3,382 0 0
Browne & Robinson	3,350 0 0
Mark	3,190 0 0
Crabb (accepted)	3,033 0 0

For new roads and sewers, Denmark Park Estate, Camberwell. Messrs. Tunley & Boyle, surveyors:—

Julian & Co.	£3,835 0 0
Bell	3,102 0 0
Keeble	3,026 0 0
Richardson	2,950 0 0
Rigby & Co.	2,918 0 0
Thompson	2,745 0 0
Jackson	2,700 0 0
Lyons	2,650 0 0
Pizzey	2,584 0 0
Ford & Morris	2,575 0 0
Harris	2,536 0 0
Wainwright & Co.	2,450 0 0
Pearson	2,383 0 0
Maye	2,350 0 0
Love	2,306 0 0
Oliver	2,290 0 0
Hare	2,239 10 0
Garrett	2,190 0 0
Simmons & Co.	2,180 8 4
Batch	2,099 0 0
Broome	2,035 0 0

For the erection of two chapels, gatekeeper's lodge, and inclosures, to the new cemetery for the Wandsworth Burial Board. Mr. Keith D. Young, architect. Quantities by Mr. Morgan Young:—

Nightingale	£5,146 0 0
Beale	4,784 0 0
Avis	4,736 0 0
Prout	4,585 0 0
Parsons (accepted)	4,575 0 0

For roads and drains to a portion of the new cemetery for the Wandsworth Burial Board. Mr. Keith D. Young, architect. Quantities by Mr. Morgan Young:—

M'Kenzie	£1,780 0 0
Prout	1,395 0 0
Nicholson	1,335 0 0
Blackmore	1,333 0 0
Neat (accepted)	1,197 0 0

For rebuilding premises, Buckingham Palace-road, for Mr. H. Gorringe. Mr. J. P. Walford, architect:—

	Contract No. 1.	Contract No. 2.
Hill, Higgs, & Co.	£24,740	£2,460
Dove, Brothers	23,960	1,590
Smith & Co.	22,350	1,500
Lawrence	22,275	1,475
Chappell	21,230	1,380
Nightingale	20,976	1,407
Scrivener & White	20,797	1,342
Shaw	19,820	1,253

For new public-house at Shepperton-green, for Messrs. Nevile, Reid, & Co. Mr. G. Carey, architect:—

Knight & Sons	£920 0 0
Gray	895 15 0
Reavell	870 0 0
Hogg	860 0 0
Forsey	850 0 0

For the erection of municipal buildings at Wakefield. Mr. T. E. Collcutt, architect. Quantities by Mr. James Gandy:—

	Warwick Stone.	Spinkwell Stone.
Kimberly	£66,214	£66,808
Lovatt	47,681	49,031
Whitely	46,807	51,307
Ives & Sons	46,642	50,142
Booth	46,000	47,300
Wood	45,380	47,000
J. & W. Beanland	44,577	45,777
Thorpe	44,2 0	45,000
Brier & Sons	43,999	45,367
Holdsworth*	42,500	43,700
Graham & Sons	41,202	—
Baker & Firbank	40,620	41,720

* Accepted in Spinkwell stone.

For new hot-water boiler, setting, connexions, and valves, at Shoreditch Workhouse. Mr. J. Wallace Pegge, engineer:—

May	£285 0 0
Smith, Son, & Co.	268 0 0
Pontifex & Wood	210 0 0
Ladd	178 0 0

For new warehouse, Church-lane, Aldgate. Mr. W. Lambert, architect. Quantities by Mr. W. H. Barber:—

Perry & Co.	£3,650 0 0
Stevenson	3,639 0 0
Pritchard	3,421 0 0
Elkington	3,330 0 0
Phillipson	3,293 0 0
Downs & Co.	3,212 0 0

For mission-room and Sunday-school, Fleet-road, Haverstock-hill. Messrs. Batterbury & Huxley, architects:—

Scrivener & White	£2,535 0 0
Downs & Co.	2,490 0 0
Newman & Mann	2,441 0 0
Manley & Rogers	2,328 0 0

For two villa residences, Forest-hill. Mr. R. E. Crossland, architect:—

		Extra for Fencing.
Bowyer & Son	£2,190	£90
Downs & Co.	2,130	90
Rider & Son	2,038	98
Larke	1,850	77

For "Royal" livery stables, Hulme, for Mr. S. Grange. Mr. T. R. Williams, architect:—

Credland	£1,915 8 11
Wharton (too late)	1,846 0 0
Wood	1,735 0 0
Hodkinson	1,544 10 0
Ellis (accepted)	1,430 0 0

Advertisements cannot be received for the current week's issue later than **THREE** o'clock p.m. *on THURSDAY.*

TO CORRESPONDENTS.

I. J. W. (thanks: the block might be purchased by any committee wishing to circulate impressions).—T. & R.—W. W. T.—Mr. L.—J. R.—J. P.—R. T.—H. H.—T. B.—F. R. (position has already been suggested. We adhere to the Embankment).—T. L. (in type).—J. C. C.—R. H. L. R.—M. & T.—W. W. & W.—J. O.—J. L.—H. J. P.—W. W. L.—F. C.—H. & R. P.—C. C. H.—G. O.

We are compelled to decline pointing out books and giving addresses.

All statements of facts, lists of tenders, &c. must be accompanied by the name and address of the sender, not necessarily for publication.

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